

INFORME:

Pre_Análisis de la red MRGMVD2004.
 Ing.Fabian D.Barbato
 Ing.Jorge Faure

BLOQUE 1

COLUMBUS 3D Geodetic Network Adjustment Software

COLUMBUS: Full - Ver 3.5.1.130
 DATE: 10/08/2004 TIME: 15:38:59

WGS 84 Major = 6378137.0000 1/f = 298.25722356
 Linear Units: Meters
 Angular Units: Degrees
 Hgt Update : Ortho Hgt Update (fix ghgt, float ellip hgt)
 Settings : Geoid Hgt Update (float ortho, fix ellip hgt)
 : Ellip Hgt Update (float ortho, fix geoid hgt)

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	0	Confidence Level	95.0
TOTAL OBSERVATIONS	18		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	1		
Float Coord Parm	9		
Direction Parm	0		
Scale Parm	0		
Rotation Parm N	0		
Rotation Parm E	0		
Rotation Parm Up	0		
TOTAL PARMS	9		
Degrees Of Freedom	9	Use Full Covariance	Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
4						
S	34-52-16.84324	0.0063	W 56-18-16.47151	0.0063	-4.46346	0.0063
5						
S	34-52-39.24963	0.0050	W 56-15-54.13144	0.0050	-4.54046	0.0050

PRE_ANALISIS.txt

6
 S 34-52-03.18202 0.0063 W 56-13-37.92316 0.0063 -4.57359 0.0063

MONTEVIDEO
 3 S 34-53-17.94873 0.0000 W 56-15-35.57665 0.0000 158.08404 0.0000

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix				
4					
Latitude S	34-52-16.84324	0.000039441			
Longitude W	56-18-16.47151	-0.000000000	0.000039441		
Ellip Hgt	-4.46346	0.000000000	-0.000000000	0.000039441	
5					
Latitude S	34-52-39.24963	0.000024923			
Longitude W	56-15-54.13144	-0.000000000	0.000024923		
Ellip Hgt	-4.54046	-0.000000000	-0.000000000	0.000024923	
6					
Latitude S	34-52-03.18202	0.000039441			
Longitude W	56-13-37.92316	-0.000000000	0.000039441		
Ellip Hgt	-4.57359	0.000000000	-0.000000000	0.000039441	
MONTEVIDEO					
F Latitude S	34-53-17.94873	0.000000000			
F Longitude W	56-15-35.57665	-0.000000000	0.000000000		
F Ellip Hgt	158.08404	-0.000000000	0.000000000	0.000000000	

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
 Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
4	NA	0.01231
5	NA	0.00978
6	NA	0.01231
MONTEVIDEO	NA	0.00000

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
 Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
4	6	0.01411

PRE_ANALISIS.txt

5	4	0.01231
5	6	0.01231
MONTEVIDEO	4	0.01231
MONTEVIDEO	5	0.00978
MONTEVIDEO	6	0.01231

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
4	6	7087.0896	0.0141	1.9906	1:502366
5	4	3680.2886	0.0123	3.3435	1:299084
5	6	3633.4611	0.0123	3.3866	1:295279
MONTEVIDEO	4	4501.9241	0.0123	2.7333	1:365856
MONTEVIDEO	5	1292.5539	0.0098	7.5678	1:132139
MONTEVIDEO	6	3776.5919	0.0123	3.2583	1:306911

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
4	5	3680.2886	0.0123	3.3435	1:299084
4	6	7087.0896	0.0141	1.9906	1:502366
4	MONTEVIDEO	4501.9241	0.0123	2.7333	1:365856
5	6	3633.4611	0.0123	3.3866	1:295279
5	MONTEVIDEO	1292.5539	0.0098	7.5678	1:132139
6	MONTEVIDEO	3776.5919	0.0123	3.2583	1:306911

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Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
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PRE_ANALISIS.txt

4	0.0063	2.4477	0.0154
	0.0063	2.9177	0.0183
5	0.0050	2.4477	0.0122
	0.0050	2.9177	0.0146
6	0.0063	2.4477	0.0154
	0.0063	2.9177	0.0183
MONTEVIDEO	0.0000	0.0000	0.0000
	0.0000	2.9177	0.0000

□

Connected Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
4	6				
0.0072	2.4477	0.0176	7087.0896	2.4867	1:402132
0.0072	2.9177	0.0210	7087.0896	2.9642	1:337360
5	4				
0.0063	2.4477	0.0154	3680.2886	4.1769	1:239410
0.0063	2.9177	0.0183	3680.2886	4.9789	1:200848
5	6				
0.0063	2.4477	0.0154	3633.4611	4.2308	1:236364
0.0063	2.9177	0.0183	3633.4611	5.0431	1:198292
MONTEVIDEO	4				
0.0063	2.4477	0.0154	4501.9241	3.4146	1:292859
0.0063	2.9177	0.0183	4501.9241	4.0702	1:245688
MONTEVIDEO	5				
0.0050	2.4477	0.0122	1292.5539	9.4541	1:105775
0.0050	2.9177	0.0146	1292.5539	11.2692	1:88737
MONTEVIDEO	6				
0.0063	2.4477	0.0154	3776.5919	4.0704	1:245675
0.0063	2.9177	0.0183	3776.5919	4.8519	1:206103

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
4	5				
0.0063	2.4477	0.0154	3680.2886	4.1769	1:239410
0.0063	2.9177	0.0183	3680.2886	4.9789	1:200848
4	6				

PRE_ANALISIS.txt

0.0072	2.4477	0.0176	7087.0896	2.4867	1:402132
0.0072	2.9177	0.0210	7087.0896	2.9642	1:337360
4	MONTEVIDEO				
0.0063	2.4477	0.0154	4501.9241	3.4146	1:292859
0.0063	2.9177	0.0183	4501.9241	4.0702	1:245688
5	6				
0.0063	2.4477	0.0154	3633.4611	4.2308	1:236364
0.0063	2.9177	0.0183	3633.4611	5.0431	1:198292
5	MONTEVIDEO				
0.0050	2.4477	0.0122	1292.5539	9.4541	1:105775
0.0050	2.9177	0.0146	1292.5539	11.2692	1:88737
6	MONTEVIDEO				
0.0063	2.4477	0.0154	3776.5919	4.0704	1:245675
0.0063	2.9177	0.0183	3776.5919	4.8519	1:206103

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Station 2D Error Ellipses

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
Expansion 2D	Chi Square	2.448	(1st row)		
Expansion 2D	'F'	2.918	(2nd row)		
AT	Major	Minor	Azimuth	Height	
4	0.0154	0.0154	109.0	0.0123	
4	0.0183	0.0183	109.0	0.0123	
5	0.0122	0.0122	159.6	0.0098	
5	0.0146	0.0146	159.6	0.0098	
6	0.0154	0.0154	109.0	0.0123	
6	0.0183	0.0183	109.0	0.0123	
MONTEVIDEO	0.0000	0.0000	0.0	0.0000	
MONTEVIDEO	0.0000	0.0000	0.0	0.0000	

□

Connected Station 2D Error Ellipses

Confidence Level	0.950						
Expansion 1D	Chi Square	1.959					
Expansion 2D	Chi Square	2.448	(1st row)				
Expansion 2D	'F'	2.918	(2nd row)				
AT	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
4	0.0176	0.0176	86.6	0.0141	7087.0896	2.4869	1:402110
	0.0210	0.0210	86.6	0.0141	7087.0896	2.9642	1:337361
5	0.0154	0.0154	100.9	0.0123	3680.2886	4.1772	1:239397
	0.0183	0.0183	100.9	0.0123	3680.2886	4.9789	1:200848
5		6					

PRE_ANALISIS.txt						
0.0154	0.0154	72.1	0.0123	3633.4611	4.2310	1:236351
0.0183	0.0183	72.1	0.0123	3633.4611	5.0430	1:198293
MONTEVIDEO 4						
0.0154	0.0154	116.6	0.0123	4501.9241	3.4148	1:292843
0.0183	0.0183	116.6	0.0123	4501.9241	4.0702	1:245688
MONTEVIDEO 5						
0.0122	0.0122	159.2	0.0098	1292.5539	9.4546	1:105769
0.0146	0.0146	159.2	0.0098	1292.5539	11.2692	1:88737
MONTEVIDEO 6						
0.0154	0.0154	97.9	0.0123	3776.5919	4.0706	1:245661
0.0183	0.0183	97.9	0.0123	3776.5919	4.8519	1:206104

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.918 (2nd row)

AT	TO	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
4	5	0.0154	0.0154	100.9	0.0123	3680.2886	4.1772	1:239397
		0.0183	0.0183	100.9	0.0123	3680.2886	4.9789	1:200848
4	6	0.0176	0.0176	86.6	0.0141	7087.0896	2.4869	1:402110
		0.0210	0.0210	86.6	0.0141	7087.0896	2.9642	1:337361
4	MONTEVIDEO	0.0154	0.0154	106.9	0.0123	4501.9241	3.4148	1:292843
		0.0183	0.0183	106.9	0.0123	4501.9241	4.0702	1:245688
5	6	0.0154	0.0154	72.1	0.0123	3633.4611	4.2310	1:236351
		0.0183	0.0183	72.1	0.0123	3633.4611	5.0430	1:198293
5	MONTEVIDEO	0.0122	0.0122	159.2	0.0098	1292.5539	9.4546	1:105769
		0.0146	0.0146	159.2	0.0098	1292.5539	11.2692	1:88737
6	MONTEVIDEO	0.0154	0.0154	97.9	0.0123	3776.5919	4.0706	1:245661
		0.0183	0.0183	97.9	0.0123	3776.5919	4.8519	1:206104

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Station 3D Error Ellipsoids

Confidence Level 0.950
 Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
4	0.0176	0.0176	0.0176
Azimuth	104.8	46.5	174.3

		PRE_ANALISIS.txt	
Zenith	118.7	133.7	122.7
5	0.0140	0.0140	0.0140
Azimuth	142.0	176.5	70.2
Zenith	133.8	130.7	72.0
6	0.0176	0.0176	0.0176
Azimuth	110.8	19.6	109.1
Zenith	34.6	90.8	124.6
MONTEVIDEO	0.0000	0.0000	0.0000
Azimuth	0.0	0.0	0.0
Zenith	0.0	0.0	0.0

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
4	0.0201	6	0.0201	0.0201	7087.0896	2.8399
Azimuth	101.5		35.9	176.6		1:352131
Zenith	110.3		42.0	124.8		
5	0.0176	4	0.0176	0.0176	3680.2886	4.7700
Azimuth	103.2		18.2	10.9		1:209642
Zenith	93.4		34.6	124.4		
5	0.0176	6	0.0176	0.0176	3633.4611	4.8315
Azimuth	91.0		30.3	162.1		1:206975
Zenith	116.0		44.9	123.6		
MONTEVIDEO	0.0176	4	0.0176	0.0176	4501.9241	3.8995
Azimuth	144.7		66.3	176.1		1:256445
Zenith	125.4		74.2	140.2		
MONTEVIDEO	0.0140	5	0.0140	0.0140	1292.5539	10.7965
Azimuth	156.7		27.2	69.6		1:92623
Zenith	78.2		18.2	76.4		
MONTEVIDEO	0.0176	6	0.0176	0.0176	3776.5919	4.6484
Azimuth	110.2		5.7	88.5		1:215128
Zenith	36.3		100.4	124.3		

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All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

PRE_ANALISIS.txt

AT	Major	TO	Medium	Minor	Chord	PPM
4		5				
	0.0176		0.0176	0.0176	3680.2886	4.7700
Azimuth	103.2		18.2	10.9		1:209642
Zenith	93.4		34.6	124.4		
4		6				
	0.0201		0.0201	0.0201	7087.0896	2.8399
Azimuth	101.5		35.9	176.6		1:352131
Zenith	110.3		42.0	124.8		
4		MONTEVIDEO				
	0.0176		0.0176	0.0176	4501.9241	3.8995
Azimuth	144.7		66.3	176.1		1:256445
Zenith	125.4		74.2	140.2		
5		6				
	0.0176		0.0176	0.0176	3633.4611	4.8315
Azimuth	91.0		30.3	162.1		1:206975
Zenith	116.0		44.9	123.6		
5		MONTEVIDEO				
	0.0140		0.0140	0.0140	1292.5539	10.7965
Azimuth	156.7		27.2	69.6		1:92623
Zenith	78.2		18.2	76.4		
6		MONTEVIDEO				
	0.0176		0.0176	0.0176	3776.5919	4.6484
Azimuth	110.2		5.7	88.5		1:215128
Zenith	36.3		100.4	124.3		

BLOQUE 2

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord ParmS	12		
Direction ParmS	0		
Scale ParmS	0		
Rotation ParmS N	0		
Rotation ParmS E	0		
Rotation ParmS Up	0		
TOTAL PARMS	12		
Degrees Of Freedom	12	Use Full Covariance	Yes

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Analyzed Coordinates

PRE_ANALISIS.txt

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
12	S 34-49-17.63465	0.0076	W 56-13-08.12480	0.0076	-4.46977	0.0076
4	S 34-52-16.84324	0.0053	W 56-18-16.47151	0.0053	-4.46346	0.0053
6	S 34-52-03.18202	0.0053	W 56-13-37.92316	0.0053	-4.57359	0.0053
7	S 34-50-04.13874	0.0077	W 56-16-21.15950	0.0077	-4.41956	0.0077

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

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Adjusted Coordinates

Station	Covariance Matrix					
12	Latitude	S	34-49-17.63465	0.000057515		
	Longitude	W	56-13-08.12480	-0.000000000	0.000057515	
	Ellip Hgt		-4.46977	-0.000000000	0.000000000	0.000057515
4	Latitude	S	34-52-16.84324	0.000028294		
	Longitude	W	56-18-16.47151	-0.000000000	0.000028294	
	Ellip Hgt		-4.46346	-0.000000000	0.000000000	0.000028294
6	Latitude	S	34-52-03.18202	0.000028294		
	Longitude	W	56-13-37.92316	-0.000000000	0.000028294	
	Ellip Hgt		-4.57359	-0.000000000	-0.000000000	0.000028294
7	Latitude	S	34-50-04.13874	0.000059872		
	Longitude	W	56-16-21.15950	0.000000000	0.000059872	
	Ellip Hgt		-4.41956	-0.000000000	0.000000000	0.000059872

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
12	NA	0.01486
4	NA	0.01042
6	NA	0.01042
7	NA	0.01516

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
4	12	0.01328
4	6	0.01147
4	7	0.01351
6	12	0.01340
6	7	0.01384
7	12	0.01402

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
4	12	9584.5092	0.0133	1.3861	1:721461
4	6	7087.0896	0.0115	1.6191	1:617630
4	7	5030.3208	0.0135	2.6854	1:372379
6	12	5157.3758	0.0134	2.5981	1:384897
6	7	5536.5566	0.0138	2.5004	1:399933
7	12	5110.2087	0.0140	2.7430	1:364568

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
12	4	9584.5092	0.0133	1.3861	1:721461
12	6	5157.3758	0.0134	2.5981	1:384897
12	7	5110.2087	0.0140	2.7430	1:364568
4	6	7087.0896	0.0115	1.6191	1:617630
4	7	5030.3208	0.0135	2.6854	1:372379
6	7	5536.5566	0.0138	2.5004	1:399933

□

Station Error Circles

Confidence Level	0.950		
Expansion 2D	Chi Square Scaler (1st row)		
Expansion 2D	'F' Scaler (2nd row)		
AT	Radius (39.35)	Scaler	Radius (95.00)
12	0.0076	2.4477	0.0186
	0.0076	2.7876	0.0211
4	0.0053	2.4477	0.0130
	0.0053	2.7876	0.0148
6	0.0053	2.4477	0.0130
	0.0053	2.7876	0.0148
7	0.0077	2.4477	0.0189
	0.0077	2.7876	0.0216

□

Connected Station Error Circles

Confidence Level	0.950					
Expansion 2D	Chi Square Scaler (1st row)					
Expansion 2D	'F' Scaler (2nd row)					
AT	TO	Radius (39.35)	Radius (95.00)	Chord	PPM	Ratio
4	12	0.0068	0.0166	9584.5092	1.7316	1:577513
		0.0068	0.0189	9584.5092	1.9720	1:507108
4	6	0.0059	0.0143	7087.0896	2.0227	1:494398
		0.0059	0.0163	7087.0896	2.3035	1:434126
4	7	0.0069	0.0169	5030.3208	3.3548	1:298081
		0.0069	0.0192	5030.3208	3.8206	1:261742
6	12	0.0068	0.0167	5157.3758	3.2457	1:308101
		0.0068	0.0191	5157.3758	3.6963	1:270541
6	7	0.0071	0.0173	5536.5566	3.1237	1:320137
		0.0071	0.0197	5536.5566	3.5573	1:281109
7	12	0.0072	0.0175	5110.2087	3.4267	1:291828
		0.0072	0.0199	5110.2087	3.9024	1:256251

□

All Station Pairs Error Circles

Confidence Level	0.950	
Expansion 2D	Chi Square Scaler (1st row)	

PRE_ANALISIS.txt
(2nd row)

Expansion 2D	'F' Scaler	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
AT Radius (39.35)						
12	4					
0.0068	2.4477		0.0166	9584.5092	1.7316	1:577513
0.0068	2.7876		0.0189	9584.5092	1.9720	1:507108
12	6					
0.0068	2.4477		0.0167	5157.3758	3.2457	1:308101
0.0068	2.7876		0.0191	5157.3758	3.6963	1:270541
12	7					
0.0072	2.4477		0.0175	5110.2087	3.4267	1:291828
0.0072	2.7876		0.0199	5110.2087	3.9024	1:256251
4	6					
0.0059	2.4477		0.0143	7087.0896	2.0227	1:494398
0.0059	2.7876		0.0163	7087.0896	2.3035	1:434126
4	7					
0.0069	2.4477		0.0169	5030.3208	3.3548	1:298081
0.0069	2.7876		0.0192	5030.3208	3.8206	1:261742
6	7					
0.0071	2.4477		0.0173	5536.5566	3.1237	1:320137
0.0071	2.7876		0.0197	5536.5566	3.5573	1:281109

□

Station 2D Error Ellipses

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
Expansion 2D	Chi Square	2.448	(1st row)		
Expansion 2D	'F'	2.788	(2nd row)		
AT	Major	Minor	Azimuth	Height	
12	0.0186	0.0186	100.2	0.0149	
12	0.0211	0.0211	100.2	0.0149	
4	0.0130	0.0130	135.0	0.0104	
4	0.0148	0.0148	135.0	0.0104	
6	0.0130	0.0130	94.3	0.0104	
6	0.0148	0.0148	94.3	0.0104	
7	0.0189	0.0189	5.4	0.0152	
7	0.0216	0.0216	5.4	0.0152	

□

Connected Station 2D Error Ellipses

Confidence Level	0.950					
Expansion 1D	Chi Square	1.959				
Expansion 2D	Chi Square	2.448	(1st row)			
Expansion 2D	'F'	2.788	(2nd row)			
AT Major	Minor	TO Azimuth	Height	Chord	PPM	Ratio

PRE_ANALISIS.txt

4		12					
0.0166	0.0166	54.7	0.0133	9584.5092	1.7317	1:577481	
0.0189	0.0189	54.7	0.0133	9584.5092	1.9720	1:507109	
4		6					
0.0143	0.0143	86.6	0.0115	7087.0896	2.0228	1:494371	
0.0163	0.0163	86.6	0.0115	7087.0896	2.3035	1:434127	
4		7					
0.0169	0.0169	35.5	0.0135	5030.3208	3.3550	1:298065	
0.0192	0.0192	35.5	0.0135	5030.3208	3.8206	1:261742	
6		12					
0.0167	0.0167	8.4	0.0134	5157.3758	3.2459	1:308085	
0.0191	0.0191	8.4	0.0134	5157.3758	3.6963	1:270541	
6		7					
0.0173	0.0173	131.6	0.0138	5536.5566	3.1238	1:320120	
0.0197	0.0197	131.6	0.0138	5536.5566	3.5573	1:281110	
7		12					
0.0175	0.0175	73.6	0.0140	5110.2087	3.4269	1:291812	
0.0199	0.0199	73.6	0.0140	5110.2087	3.9024	1:256252	

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
12			4					
0.0166	0.0166	54.7	0.0133	9584.5092	1.7317	1:577481		
0.0189	0.0189	54.7	0.0133	9584.5092	1.9720	1:507109		
12			6					
0.0167	0.0167	8.4	0.0134	5157.3758	3.2459	1:308085		
0.0191	0.0191	8.4	0.0134	5157.3758	3.6963	1:270541		
12			7					
0.0175	0.0175	73.6	0.0140	5110.2087	3.4269	1:291812		
0.0199	0.0199	73.6	0.0140	5110.2087	3.9024	1:256252		
4			6					
0.0143	0.0143	86.6	0.0115	7087.0896	2.0228	1:494371		
0.0163	0.0163	86.6	0.0115	7087.0896	2.3035	1:434127		
4			7					
0.0169	0.0169	35.5	0.0135	5030.3208	3.3550	1:298065		
0.0192	0.0192	35.5	0.0135	5030.3208	3.8206	1:261742		
6			7					
0.0173	0.0173	131.6	0.0138	5536.5566	3.1238	1:320120		
0.0197	0.0197	131.6	0.0138	5536.5566	3.5573	1:281110		

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
12	0.0212	0.0212	0.0212
Azimuth	106.4	98.2	9.4
Zenith	22.5	112.3	87.1
4	0.0149	0.0149	0.0149
Azimuth	23.0	0.9	91.0
Zenith	2.5	92.3	90.9
6	0.0149	0.0149	0.0149
Azimuth	36.2	94.8	4.4
Zenith	6.7	86.5	84.3
7	0.0216	0.0216	0.0216
Azimuth	0.2	6.0	95.7
Zenith	11.9	78.1	91.2

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
4	0.0190	12	0.0190	0.0190	9584.5092	1.9774
Azimuth	1.6		65.1	144.7		1:505705
Zenith	35.4		107.6	119.6		
4	0.0164	6	0.0164	0.0164	7087.0896	2.3099
Azimuth	6.4		89.8	176.6		1:432925
Zenith	35.2		94.6	124.8		
4	0.0193	7	0.0193	0.0193	5030.3208	3.8312
Azimuth	1.8		47.4	125.5		1:261018
Zenith	36.1		117.0	68.0		
6	0.0191	12	0.0191	0.0191	5157.3758	3.7066
Azimuth	144.9		9.0	98.4		1:269792
Zenith	8.4		96.1	84.2		
6	0.0198	7	0.0198	0.0198	5536.5566	3.5672
Azimuth	16.8		126.0	41.6		1:280332
Zenith	29.8		79.3	117.5		
7	0.0200	12	0.0200	0.0200	5110.2087	3.9132
Azimuth	24.5		88.6	163.6		1:255543

PRE_ANALISIS.txt
123.7

Zenith 41.4 111.1

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	TO	Major	Medium	Minor	Chord	PPM
12	4	0.0190	0.0190	0.0190	9584.5092	1.9774
Azimuth		1.6	65.1	144.7		1:505705
Zenith		35.4	107.6	119.6		
12	6	0.0191	0.0191	0.0191	5157.3758	3.7066
Azimuth		144.9	9.0	98.4		1:269792
Zenith		8.4	96.1	84.2		
12	7	0.0200	0.0200	0.0200	5110.2087	3.9132
Azimuth		24.5	88.6	163.6		1:255543
Zenith		41.4	111.1	123.7		
4	6	0.0164	0.0164	0.0164	7087.0896	2.3099
Azimuth		6.4	89.8	176.6		1:432925
Zenith		35.2	94.6	124.8		
4	7	0.0193	0.0193	0.0193	5030.3208	3.8312
Azimuth		1.8	47.4	125.5		1:261018
Zenith		36.1	117.0	68.0		
6	7	0.0198	0.0198	0.0198	5536.5566	3.5672
Azimuth		16.8	126.0	41.6		1:280332
Zenith		29.8	79.3	117.5		

BLOQUE 3

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parm	12		
Direction Parm	0		

PRE_ANALISIS.txt

Scale Parms 0
 Rotation Parms N 0
 Rotation Parms E 0
 Rotation Parms Up 0
 TOTAL PARMS 12

Degrees Of Freedom 12 Use Full Covariance Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
10	S 34-47-06.54775	0.0085	W 56-15-37.11161	0.0085	-4.31330	0.0085
12	S 34-49-17.63465	0.0062	W 56-13-08.12480	0.0062	-4.46977	0.0062
14	S 34-46-37.07186	0.0085	W 56-13-09.81436	0.0085	-4.35585	0.0085
7	S 34-50-04.13874	0.0063	W 56-16-21.15950	0.0063	-4.41956	0.0063

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix					
10	Latitude S	34-47-06.54775	0.000071951			
	Longitude W	56-15-37.11161	-0.000000000	0.000071951		
	Ellip Hgt	-4.31330	0.000000000	-0.000000000	0.000071951	
12	Latitude S	34-49-17.63465	0.000038411			
	Longitude W	56-13-08.12480	0.000000000	0.000038411		
	Ellip Hgt	-4.46977	0.000000000	0.000000000	0.000038411	
14	Latitude S	34-46-37.07186	0.000073078			
	Longitude W	56-13-09.81436	0.000000000	0.000073078		
	Ellip Hgt	-4.35585	0.000000000	-0.000000000	0.000073078	
7	Latitude S	34-50-04.13874	0.000039171			
	Longitude W	56-16-21.15950	0.000000000	0.000039171		
	Ellip Hgt	-4.41956	0.000000000	-0.000000000	0.000039171	

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
 Expansion 1D Chi Square 1.959

PRE_ANALISIS.txt

AT	TO	Height Confidence Interval
10	NA	0.01662
12	NA	0.01214
14	NA	0.01675
7	NA	0.01226

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
10	14	0.01371
12	10	0.01395
12	14	0.01384
7	10	0.01434
7	12	0.01205
7	14	0.01474

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
10	14	3853.6342	0.0137	3.5587	1:281005
12	10	5537.0820	0.0139	2.5186	1:397050
12	14	4948.0547	0.0138	2.7973	1:357493
7	10	5585.9534	0.0143	2.5663	1:389663
7	12	5110.2087	0.0120	2.3576	1:424158
7	14	8023.1089	0.0147	1.8376	1:544197

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
10	12	5537.0820	0.0139	2.5186	1:397050

PRE_ANALISIS.txt

10	14	3853.6342	0.0137	3.5587	1:281005
10	7	5585.9534	0.0143	2.5663	1:389663
12	14	4948.0547	0.0138	2.7973	1:357493
12	7	5110.2087	0.0120	2.3576	1:424158
14	7	8023.1089	0.0147	1.8376	1:544197

□

Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
10	0.0085	2.4477	0.0208
	0.0085	2.7876	0.0236
12	0.0062	2.4477	0.0152
	0.0062	2.7876	0.0173
14	0.0085	2.4477	0.0209
	0.0085	2.7876	0.0238
7	0.0063	2.4477	0.0153
	0.0063	2.7876	0.0174

□

Connected Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	TO	Scaler	Radius (95.00)	Chord	PPM	Ratio
10	0.0070	14	2.4477	0.0171	3853.6342	4.4457	1:224938
	0.0070		2.7876	0.0195	3853.6342	5.0629	1:197516
12	0.0071	10	2.4477	0.0174	5537.0820	3.1463	1:317829
	0.0071		2.7876	0.0198	5537.0820	3.5832	1:279083
12	0.0071	14	2.4477	0.0173	4948.0547	3.4945	1:286165
	0.0071		2.7876	0.0197	4948.0547	3.9797	1:251278
7	0.0073	10	2.4477	0.0179	5585.9534	3.2060	1:311916
	0.0073		2.7876	0.0204	5585.9534	3.6511	1:273890
7	0.0061	12	2.4477	0.0151	5110.2087	2.9453	1:339529
	0.0061		2.7876	0.0171	5110.2087	3.3542	1:298137

PRE_ANALISIS.txt

7	14				
0.0075	2.4477	0.0184	8023.1089	2.2956	1:435616
0.0075	2.7876	0.0210	8023.1089	2.6143	1:382510

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT Radius (39.35)	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
10	12				
0.0071	2.4477	0.0174	5537.0820	3.1463	1:317829
0.0071	2.7876	0.0198	5537.0820	3.5832	1:279083
10	14				
0.0070	2.4477	0.0171	3853.6342	4.4457	1:224938
0.0070	2.7876	0.0195	3853.6342	5.0629	1:197516
10	7				
0.0073	2.4477	0.0179	5585.9534	3.2060	1:311916
0.0073	2.7876	0.0204	5585.9534	3.6511	1:273890
12	14				
0.0071	2.4477	0.0173	4948.0547	3.4945	1:286165
0.0071	2.7876	0.0197	4948.0547	3.9797	1:251278
12	7				
0.0061	2.4477	0.0151	5110.2087	2.9453	1:339529
0.0061	2.7876	0.0171	5110.2087	3.3542	1:298137
14	7				
0.0075	2.4477	0.0184	8023.1089	2.2956	1:435616
0.0075	2.7876	0.0210	8023.1089	2.6143	1:382510

□

Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	Azimuth	Height
10	0.0208	0.0208	91.3	0.0166
10	0.0236	0.0236	91.3	0.0166
12	0.0152	0.0152	135.0	0.0121
12	0.0173	0.0173	135.0	0.0121
14	0.0209	0.0209	86.4	0.0167
14	0.0238	0.0238	86.4	0.0167
7	0.0153	0.0153	85.7	0.0123
7	0.0174	0.0174	85.7	0.0123

PRE_ANALISIS.txt

□

Connected Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
10			14					
0.0171		0.0171		76.3	0.0137	3853.6342	4.4459	1:224926
0.0195		0.0195		76.3	0.0137	3853.6342	5.0629	1:197516
12			10					
0.0174		0.0174		137.0	0.0139	5537.0820	3.1465	1:317812
0.0198		0.0198		137.0	0.0139	5537.0820	3.5832	1:279083
12			14					
0.0173		0.0173		179.5	0.0138	4948.0547	3.4947	1:286149
0.0197		0.0197		179.5	0.0138	4948.0547	3.9796	1:251279
7			10					
0.0179		0.0179		11.5	0.0143	5585.9534	3.2062	1:311899
0.0204		0.0204		11.5	0.0143	5585.9534	3.6511	1:273891
7			12					
0.0151		0.0151		73.6	0.0120	5110.2087	2.9454	1:339510
0.0171		0.0171		73.6	0.0120	5110.2087	3.3542	1:298137
7			14					
0.0184		0.0184		37.2	0.0147	8023.1089	2.2957	1:435593
0.0210		0.0210		37.2	0.0147	8023.1089	2.6143	1:382511

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
10			12					
0.0174		0.0174		137.0	0.0139	5537.0820	3.1465	1:317812
0.0198		0.0198		137.0	0.0139	5537.0820	3.5832	1:279083
10			14					
0.0171		0.0171		76.3	0.0137	3853.6342	4.4459	1:224926
0.0195		0.0195		76.3	0.0137	3853.6342	5.0629	1:197516
10			7					
0.0179		0.0179		11.5	0.0143	5585.9534	3.2062	1:311899
0.0204		0.0204		11.5	0.0143	5585.9534	3.6511	1:273891
12			14					
0.0173		0.0173		179.5	0.0138	4948.0547	3.4947	1:286149
0.0197		0.0197		179.5	0.0138	4948.0547	3.9796	1:251279

PRE_ANALISIS.txt

12	7					
0.0151	0.0151	73.6	0.0120	5110.2087	2.9454	1:339510
0.0171	0.0171	73.6	0.0120	5110.2087	3.3542	1:298137
14	7					
0.0184	0.0184	37.2	0.0147	8023.1089	2.2957	1:435593
0.0210	0.0210	37.2	0.0147	8023.1089	2.6143	1:382511

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
10	0.0237	0.0237	0.0237
Azimuth	145.2	90.3	1.1
Zenith	9.8	84.3	98.0
12	0.0173	0.0173	0.0173
Azimuth	60.6	135.0	44.6
Zenith	9.3	87.5	81.0
14	0.0239	0.0239	0.0239
Azimuth	86.4	177.7	176.3
Zenith	90.3	14.7	104.7
7	0.0175	0.0175	0.0175
Azimuth	112.4	85.6	175.6
Zenith	1.8	88.4	90.8

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
10	0.0196	14	0.0196	0.0196	3853.6342	5.0769
Azimuth	73.3		156.7	166.3		1:196969
Zenith	85.5		34.4	124.0		
12	0.0199	10	0.0199	0.0199	5537.0820	3.5931
Azimuth	81.1		144.1	47.0		1:278311
Zenith	29.8		75.4	115.4		
12	0.0197	14	0.0197	0.0197	4948.0547	3.9907
Azimuth	179.5		175.6	89.5		1:250583
Zenith	85.0		5.0	90.3		
7	0.0205	10	0.0205	0.0205	5585.9534	3.6612

PRE_ANALISISIS.txt					
Azimuth	139.6	12.4	101.5		1:273132
Zenith	10.0	96.1	82.1		
7	12				
Azimuth	0.0172	0.0172	0.0172	5110.2087	3.3635
Zenith	60.1	125.7	163.6		1:297312
Zenith	70.7	40.3	123.7		
7	14				
Azimuth	0.0210	0.0210	0.0210	8023.1089	2.6216
Zenith	39.6	142.7	127.2		1:381452
Zenith	95.7	23.6	67.2		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
10	12					
Azimuth	0.0199	0.0199	0.0199	5537.0820	3.5931	
Zenith	81.1	144.1	47.0		1:278311	
Zenith	29.8	75.4	115.4			
10	14					
Azimuth	0.0196	0.0196	0.0196	3853.6342	5.0769	
Zenith	73.3	156.7	166.3		1:196969	
Zenith	85.5	34.4	124.0			
10	7					
Azimuth	0.0205	0.0205	0.0205	5585.9534	3.6612	
Zenith	139.6	12.4	101.5		1:273132	
Zenith	10.0	96.1	82.1			
12	14					
Azimuth	0.0197	0.0197	0.0197	4948.0547	3.9907	
Zenith	179.5	175.6	89.5		1:250583	
Zenith	85.0	5.0	90.3			
12	7					
Azimuth	0.0172	0.0172	0.0172	5110.2087	3.3635	
Zenith	60.1	125.7	163.6		1:297312	
Zenith	70.7	40.3	123.7			
14	7					
Azimuth	0.0210	0.0210	0.0210	8023.1089	2.6216	
Zenith	39.6	142.7	127.2		1:381452	
Zenith	95.7	23.6	67.2			

BLOQUE 4

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000

```

PRE_ANALISIS.txt
Coord Observations      6      Confidence Level      95.0
TOTAL OBSERVATIONS     24

Num Stations            4
Fixed In 1D             0
Fixed In 2D             0
Fixed In 3D             0
Float Coord Parm      12

Direction Parm         0
Scale Parm             0
Rotation Parm N        0
Rotation Parm E        0
Rotation Parm Up       0
TOTAL PARMS           12

Degrees Of Freedom     12      Use Full Covariance     Yes

```

□

Analized Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
3	S 34-51-16.41699	0.0079	W 56-20-22.00398	0.0079	-4.36684	0.0079
4	S 34-52-16.84324	0.0054	W 56-18-16.47151	0.0054	-4.46346	0.0054
7	S 34-50-04.13874	0.0060	W 56-16-21.15950	0.0060	-4.41956	0.0060
8	S 34-48-51.06814	0.0078	W 56-18-46.32415	0.0078	-4.30557	0.0078

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix					
3	Latitude	S	34-51-16.41699	0.000062225		
	Longitude	W	56-20-22.00398	-0.000000000	0.000062225	
	Ellip Hgt		-4.36684	-0.000000000	0.000000000	0.000062225
4	Latitude	S	34-52-16.84324	0.000029079		
	Longitude	W	56-18-16.47151	0.000000000	0.000029079	
	Ellip Hgt		-4.46346	0.000000000	0.000000000	0.000029079
7	Latitude	S	34-50-04.13874	0.000035994		
	Longitude	W	56-16-21.15950	0.000000000	0.000035994	
	Ellip Hgt		-4.41956	-0.000000000	0.000000000	0.000035994
8	Latitude	S	34-48-51.06814	0.000061245		
	Longitude	W	56-18-46.32415	-0.000000000	0.000061245	

Ellip Hgt -4.30557 PRE_ANALISIS.txt 0.000000000 0.000000000 0.000061245

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion ID Chi Square 1.959

AT	TO	Height Confidence Interval
3	NA	0.01546
4	NA	0.01057
7	NA	0.01176
8	NA	0.01533

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion ID Chi Square 1.959

AT	TO	Height Confidence Interval
3	8	0.01393
4	3	0.01306
4	7	0.01136
4	8	0.01338
7	3	0.01381
7	8	0.01297

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion ID Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
3	8	5096.3038	0.0139	2.7340	1:365764
4	3	3692.4413	0.0131	3.5362	1:282790
4	7	5030.3208	0.0114	2.2583	1:442811
4	8	6386.3625	0.0134	2.0947	1:477402
7	3	6511.5981	0.0138	2.1205	1:471578
7	8	4321.8459	0.0130	3.0021	1:333103

PRE_ANALISIS.txt

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
3	4	3692.4413	0.0131	3.5362	1:282790
3	7	6511.5981	0.0138	2.1205	1:471578
3	8	5096.3038	0.0139	2.7340	1:365764
4	7	5030.3208	0.0114	2.2583	1:442811
4	8	6386.3625	0.0134	2.0947	1:477402
7	8	4321.8459	0.0130	3.0021	1:333103

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
3	0.0079	2.4477	0.0193
	0.0079	2.7876	0.0220
4	0.0054	2.4477	0.0132
	0.0054	2.7876	0.0150
7	0.0060	2.4477	0.0147
	0.0060	2.7876	0.0167
8	0.0078	2.4477	0.0192
	0.0078	2.7876	0.0218

□

Connected Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	TO	Scaler	Radius (95.00)	Chord	PPM	Ratio
3		8					
	0.0071		2.4477	0.0174	5096.3038	3.4155	1:292786
	0.0071		2.7876	0.0198	5096.3038	3.8897	1:257092
4		3					
	0.0067		2.4477	0.0163	3692.4413	4.4176	1:226366
	0.0067		2.7876	0.0186	3692.4413	5.0309	1:198770
4		7					

PRE_ANALISIS.txt

	0.0058	2.4477	0.0142	5030.3208	2.8212	1:354459
	0.0058	2.7876	0.0162	5030.3208	3.2129	1:311247
4		8				
	0.0068	2.4477	0.0167	6386.3625	2.6168	1:382149
	0.0068	2.7876	0.0190	6386.3625	2.9801	1:335561
7		3				
	0.0070	2.4477	0.0172	6511.5981	2.6491	1:377487
	0.0070	2.7876	0.0196	6511.5981	3.0169	1:331468
7		8				
	0.0066	2.4477	0.0162	4321.8459	3.7504	1:266641
	0.0066	2.7876	0.0185	4321.8459	4.2710	1:234135

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
3		4				
	0.0067	2.4477	0.0163	3692.4413	4.4176	1:226366
	0.0067	2.7876	0.0186	3692.4413	5.0309	1:198770
3		7				
	0.0070	2.4477	0.0172	6511.5981	2.6491	1:377487
	0.0070	2.7876	0.0196	6511.5981	3.0169	1:331468
3		8				
	0.0071	2.4477	0.0174	5096.3038	3.4155	1:292786
	0.0071	2.7876	0.0198	5096.3038	3.8897	1:257092
4		7				
	0.0058	2.4477	0.0142	5030.3208	2.8212	1:354459
	0.0058	2.7876	0.0162	5030.3208	3.2129	1:311247
4		8				
	0.0068	2.4477	0.0167	6386.3625	2.6168	1:382149
	0.0068	2.7876	0.0190	6386.3625	2.9801	1:335561
7		8				
	0.0066	2.4477	0.0162	4321.8459	3.7504	1:266641
	0.0066	2.7876	0.0185	4321.8459	4.2710	1:234135

□

Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	Azimuth	Height
3	0.0193	0.0193	90.5	0.0155
3	0.0220	0.0220	90.5	0.0155

PRE_ANALISIS.txt

4	0.0132	0.0132	135.0	0.0106
4	0.0150	0.0150	135.0	0.0106
7	0.0147	0.0147	135.0	0.0118
7	0.0167	0.0167	135.0	0.0118
8	0.0192	0.0192	177.9	0.0153
8	0.0218	0.0218	177.9	0.0153

□

Connected Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
3	0.0174	8	28.4	0.0139	5096.3038	3.4157	1:292770
	0.0198		28.4	0.0139	5096.3038	3.8896	1:257093
4	0.0163	3	120.4	0.0131	3692.4413	4.4179	1:226354
	0.0186		120.4	0.0131	3692.4413	5.0309	1:198770
4	0.0142	7	35.5	0.0114	5030.3208	2.8214	1:354440
	0.0162		35.5	0.0114	5030.3208	3.2129	1:311248
4	0.0167	8	173.2	0.0134	6386.3625	2.6169	1:382128
	0.0190		173.2	0.0134	6386.3625	2.9801	1:335562
7	0.0173	3	69.9	0.0138	6511.5981	2.6492	1:377467
	0.0196		69.9	0.0138	6511.5981	3.0169	1:331468
7	0.0162	8	121.5	0.0130	4321.8459	3.7506	1:266627
	0.0185		121.5	0.0130	4321.8459	4.2710	1:234136

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
3	0.0163	4	120.4	0.0131	3692.4413	4.4179	1:226354
	0.0186		120.4	0.0131	3692.4413	5.0309	1:198770
3		7					

PRE_ANALISISIS.txt						
0.0173	0.0173	69.9	0.0138	6511.5981	2.6492	1:377467
0.0196	0.0196	69.9	0.0138	6511.5981	3.0169	1:331468
3	8					
0.0174	0.0174	28.4	0.0139	5096.3038	3.4157	1:292770
0.0198	0.0198	28.4	0.0139	5096.3038	3.8896	1:257093
4	7					
0.0142	0.0142	35.5	0.0114	5030.3208	2.8214	1:354440
0.0162	0.0162	35.5	0.0114	5030.3208	3.2129	1:311248
4	8					
0.0167	0.0167	173.2	0.0134	6386.3625	2.6169	1:382128
0.0190	0.0190	173.2	0.0134	6386.3625	2.9801	1:335562
7	8					
0.0162	0.0162	121.5	0.0130	4321.8459	3.7506	1:266627
0.0185	0.0185	121.5	0.0130	4321.8459	4.2710	1:234136

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
3	0.0221	0.0221	0.0221
Azimuth	92.1	61.3	178.0
Zenith	69.6	23.4	79.0
4	0.0151	0.0151	0.0151
Azimuth	133.6	138.1	46.0
Zenith	44.1	46.0	92.3
7	0.0168	0.0168	0.0168
Azimuth	133.6	138.1	46.0
Zenith	44.1	46.0	92.3
8	0.0219	0.0219	0.0219
Azimuth	178.0	177.9	88.0
Zenith	84.6	174.6	90.0

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
3	0.0199	8	0.0199	0.0199	5096.3038	3.9004
Azimuth	83.8		24.5	118.4		1:256381
Zenith	21.9		78.4	71.7		
4	0.0186	3	0.0186	0.0186	3692.4413	5.0449

PRE_ANALISISIS.txt					
Azimuth	63.8	130.3	30.4		1:198220
Zenith	35.8	106.0	121.0		
4	7				
Azimuth	0.0162	0.0162	0.0162	5030.3208	3.2218
Zenith	139.8	37.5	125.5		1:310386
Zenith	22.6	95.0	68.0		
4	8				
Azimuth	0.0191	0.0191	0.0191	6386.3625	2.9883
Zenith	174.3	153.6	83.2		1:334633
Zenith	77.1	13.8	94.7		
7	3				
Azimuth	0.0197	0.0197	0.0197	6511.5981	3.0253
Zenith	71.5	165.1	159.9		1:330551
Zenith	92.4	33.3	123.2		
7	8				
Azimuth	0.0185	0.0185	0.0185	4321.8459	4.2829
Zenith	31.5	121.5	31.5		1:233488
Zenith	149.3	90.0	120.7		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
3	4					
Azimuth	0.0186	0.0186	0.0186	3692.4413	5.0449	
Zenith	63.8	130.3	30.4		1:198220	
Zenith	35.8	106.0	121.0			
3	7					
Azimuth	0.0197	0.0197	0.0197	6511.5981	3.0253	
Zenith	71.5	165.1	159.9		1:330551	
Zenith	92.4	33.3	123.2			
3	8					
Azimuth	0.0199	0.0199	0.0199	5096.3038	3.9004	
Zenith	83.8	24.5	118.4		1:256381	
Zenith	21.9	78.4	71.7			
4	7					
Azimuth	0.0162	0.0162	0.0162	5030.3208	3.2218	
Zenith	139.8	37.5	125.5		1:310386	
Zenith	22.6	95.0	68.0			
4	8					
Azimuth	0.0191	0.0191	0.0191	6386.3625	2.9883	
Zenith	174.3	153.6	83.2		1:334633	
Zenith	77.1	13.8	94.7			
7	8					
Azimuth	0.0185	0.0185	0.0185	4321.8459	4.2829	
Zenith	31.5	121.5	31.5		1:233488	
Zenith	149.3	90.0	120.7			

PRE_ANALISIS.txt

BLOQUE 5

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parm	12		
Direction Parm	0		
Scale Parm	0		
Rotation Parm N	0		
Rotation Parm E	0		
Rotation Parm Up	0		
TOTAL PARMS	12		
Degrees Of Freedom	12	Use Full Covariance	Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
1	S 34-49-40.65911	0.0087	W 56-23-29.29527	0.0087	-4.21860	0.0087
2	S 34-48-30.48767	0.0083	W 56-21-24.64111	0.0083	-4.22285	0.0083
3	S 34-51-16.41699	0.0064	W 56-20-22.00398	0.0064	-4.36684	0.0064
8	S 34-48-51.06814	0.0063	W 56-18-46.32415	0.0063	-4.30557	0.0063

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix				
1	Latitude	S	34-49-40.65911	0.000074854	
	Longitude	W	56-23-29.29527	0.000000000	0.000074854
	Ellip Hgt		-4.21860	0.000000000	-0.000000000
					0.000074854
2	Latitude	S	34-48-30.48767	0.000069467	
	Longitude	W	56-21-24.64111	0.000000000	0.000069467

Ellip Hgt		-4.22285	PRE_ANALISIS.txt 0.000000000	0.000000000	0.000069467
3					
Latitude	S	34-51-16.41699	0.000040455		
Longitude	W	56-20-22.00398	0.000000000	0.000040455	
Ellip Hgt		-4.36684	0.000000000	0.000000000	0.000040455
8					
Latitude	S	34-48-51.06814	0.000040155		
Longitude	W	56-18-46.32415	0.000000000	0.000040155	
Ellip Hgt		-4.30557	0.000000000	0.000000000	0.000040155

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
1	NA	0.01695
2	NA	0.01633
3	NA	0.01246
8	NA	0.01242

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
1	2	0.01360
3	1	0.01441
3	2	0.01407
3	8	0.01204
8	1	0.01423
8	2	0.01308

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
1	2	3835.5882	0.0136	3.5456	1:282041

		PRE_ANALISIS.txt			
3	1	5599.1522	0.0144	2.5736	1:388566
3	2	5355.2479	0.0141	2.6268	1:380689
3	8	5096.3038	0.0120	2.3624	1:423304
8	1	7351.6968	0.0142	1.9362	1:516472
8	2	4073.4375	0.0131	3.2119	1:311339

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
1	2	3835.5882	0.0136	3.5456	1:282041
1	3	5599.1522	0.0144	2.5736	1:388566
1	8	7351.6968	0.0142	1.9362	1:516472
2	3	5355.2479	0.0141	2.6268	1:380689
2	8	4073.4375	0.0131	3.2119	1:311339
3	8	5096.3038	0.0120	2.3624	1:423304

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
1	0.0087	2.4477	0.0212
	0.0087	2.7876	0.0241
2	0.0083	2.4477	0.0204
	0.0083	2.7876	0.0232
3	0.0064	2.4477	0.0156
	0.0064	2.7876	0.0177
8	0.0063	2.4477	0.0155
	0.0063	2.7876	0.0177

□

Connected Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				

PRE_ANALISIS.txt

1	0.0069 0.0069	2 2.4477 2.7876	0.0170 0.0193	3835.5882 3835.5882	4.4293 5.0443	1:225767 1:198244
3	0.0074 0.0074	1 2.4477 2.7876	0.0180 0.0205	5599.1522 5599.1522	3.2150 3.6614	1:311038 1:273119
3	0.0072 0.0072	2 2.4477 2.7876	0.0176 0.0200	5355.2479 5355.2479	3.2816 3.7372	1:304732 1:267582
3	0.0061 0.0061	8 2.4477 2.7876	0.0150 0.0171	5096.3038 5096.3038	2.9512 3.3609	1:338845 1:297536
8	0.0073 0.0073	1 2.4477 2.7876	0.0178 0.0203	7351.6968 7351.6968	2.4188 2.7546	1:413424 1:363023
8	0.0067 0.0067	2 2.4477 2.7876	0.0163 0.0186	4073.4375 4073.4375	4.0125 4.5696	1:249219 1:218837

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
1	0.0069 0.0069	2 2.4477 2.7876	0.0170 0.0193	3835.5882 3835.5882	4.4293 5.0443	1:225767 1:198244
1	0.0074 0.0074	3 2.4477 2.7876	0.0180 0.0205	5599.1522 5599.1522	3.2150 3.6614	1:311038 1:273119
1	0.0073 0.0073	8 2.4477 2.7876	0.0178 0.0203	7351.6968 7351.6968	2.4188 2.7546	1:413424 1:363023
2	0.0072 0.0072	3 2.4477 2.7876	0.0176 0.0200	5355.2479 5355.2479	3.2816 3.7372	1:304732 1:267582
2	0.0067 0.0067	8 2.4477 2.7876	0.0163 0.0186	4073.4375 4073.4375	4.0125 4.5696	1:249219 1:218837
3	0.0061 0.0061	8 2.4477 2.7876	0.0150 0.0171	5096.3038 5096.3038	2.9512 3.3609	1:338845 1:297536

□

Station 2D Error Ellipses

PRE_ANALISIS.txt

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	Azimuth	Height
1	0.0212	0.0212	84.0	0.0170
1	0.0241	0.0241	84.0	0.0170
2	0.0204	0.0204	82.6	0.0163
2	0.0232	0.0232	82.6	0.0163
3	0.0156	0.0156	85.7	0.0125
3	0.0177	0.0177	85.7	0.0125
8	0.0155	0.0155	135.0	0.0124
8	0.0177	0.0177	135.0	0.0124

□

Connected Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
1	0.0170	0.0170	2	55.6	0.0136	3835.5882	4.4296	1:225755
	0.0193	0.0193		55.6	0.0136	3835.5882	5.0443	1:198244
3	0.0180	0.0180	1	121.9	0.0144	5599.1522	3.2152	1:311021
	0.0205	0.0205		121.9	0.0144	5599.1522	3.6614	1:273120
3	0.0176	0.0176	2	162.8	0.0141	5355.2479	3.2817	1:304716
	0.0200	0.0200		162.8	0.0141	5355.2479	3.7372	1:267583
3	0.0150	0.0150	8	28.4	0.0120	5096.3038	2.9514	1:338827
	0.0171	0.0171		28.4	0.0120	5096.3038	3.3609	1:297537
8	0.0178	0.0178	1	77.9	0.0142	7351.6968	2.4190	1:413401
	0.0203	0.0203		77.9	0.0142	7351.6968	2.7546	1:363024
8	0.0163	0.0163	2	99.0	0.0131	4073.4375	4.0127	1:249206
	0.0186	0.0186		99.0	0.0131	4073.4375	4.5696	1:218837

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)

Expansion		2D	'F'	PRE_ANALISIS.txt 2.788 (2nd row)			
AT	Major	Minor	TO Azimuth	Height	Chord	PPM	Ratio
1	0.0170	0.0170	2 55.6	0.0136	3835.5882	4.4296	1:225755
	0.0193	0.0193	55.6	0.0136	3835.5882	5.0443	1:198244
1	0.0180	0.0180	3 121.9	0.0144	5599.1522	3.2152	1:311021
	0.0205	0.0205	121.9	0.0144	5599.1522	3.6614	1:273120
1	0.0178	0.0178	8 77.9	0.0142	7351.6968	2.4190	1:413401
	0.0203	0.0203	77.9	0.0142	7351.6968	2.7546	1:363024
2	0.0176	0.0176	3 162.8	0.0141	5355.2479	3.2817	1:304716
	0.0200	0.0200	162.8	0.0141	5355.2479	3.7372	1:267583
2	0.0163	0.0163	8 99.0	0.0131	4073.4375	4.0127	1:249206
	0.0186	0.0186	99.0	0.0131	4073.4375	4.5696	1:218837
3	0.0150	0.0150	8 28.4	0.0120	5096.3038	2.9514	1:338827
	0.0171	0.0171	28.4	0.0120	5096.3038	3.3609	1:297537

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
1	0.0242	0.0242	0.0242
Azimuth	1.8	85.0	174.5
Zenith	16.3	92.0	106.2
2	0.0233	0.0233	0.0233
Azimuth	49.5	89.4	176.2
Zenith	19.4	105.1	101.9
3	0.0178	0.0178	0.0178
Azimuth	21.0	87.9	177.6
Zenith	7.3	92.9	96.7
8	0.0177	0.0177	0.0177
Azimuth	27.8	133.1	58.4
Zenith	47.2	105.8	132.9

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

PRE_ANALISIS.txt

AT	Major	TO	Medium	Minor	Chord	PPM
1		2				
	0.0194		0.0194	0.0194	3835.5882	5.0583
Azimuth	97.4		40.1	145.6		1:197696
Zenith	40.7		65.1	119.8		
3		1				
	0.0206		0.0206	0.0206	5599.1522	3.6716
Azimuth	46.1		125.7	31.9		1:272364
Zenith	31.4		96.3	120.6		
3		2				
	0.0201		0.0201	0.0201	5355.2479	3.7475
Azimuth	31.4		160.7	72.8		1:266842
Zenith	15.4		99.9	101.6		
3		8				
	0.0172		0.0172	0.0172	5096.3038	3.3703
Azimuth	161.3		33.6	118.4		1:296713
Zenith	24.3		105.4	71.7		
8		1				
	0.0203		0.0203	0.0203	7351.6968	2.7623
Azimuth	107.3		48.6	167.9		1:362019
Zenith	125.8		54.2	124.2		
8		2				
	0.0187		0.0187	0.0187	4073.4375	4.5823
Azimuth	159.2		88.6	9.0		1:218232
Zenith	38.4		75.3	124.5		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
1		2				
	0.0194		0.0194	0.0194	3835.5882	5.0583
Azimuth	97.4		40.1	145.6		1:197696
Zenith	40.7		65.1	119.8		
1		3				
	0.0206		0.0206	0.0206	5599.1522	3.6716
Azimuth	46.1		125.7	31.9		1:272364
Zenith	31.4		96.3	120.6		
1		8				
	0.0203		0.0203	0.0203	7351.6968	2.7623
Azimuth	107.3		48.6	167.9		1:362019
Zenith	125.8		54.2	124.2		
2		3				
	0.0201		0.0201	0.0201	5355.2479	3.7475
Azimuth	31.4		160.7	72.8		1:266842
Zenith	15.4		99.9	101.6		

PRE_ANALISIS.txt

2	8				
	0.0187	0.0187	0.0187	4073.4375	4.5823
Azimuth	159.2	88.6	9.0		1:218232
Zenith	38.4	75.3	124.5		

3	8				
	0.0172	0.0172	0.0172	5096.3038	3.3703
Azimuth	161.3	33.6	118.4		1:296713
Zenith	24.3	105.4	71.7		

BLOQUE 6

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532

Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		

Num Stations	4
Fixed In 1D	0
Fixed In 2D	0
Fixed In 3D	0
Float Coord Parms	12

Direction Parms	0
Scale Parms	0
Rotation Parms N	0
Rotation Parms E	0
Rotation Parms Up	0
TOTAL PARMS	12

Degrees Of Freedom	12	Use Full Covariance	Yes
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□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
10	S 34-47-06.54775	0.0067	W 56-15-37.11161	0.0067	-4.31330	0.0067
29	S 34-45-13.25514	0.0085	W 56-18-16.94364	0.0085	-4.16455	0.0085
8	S 34-48-51.06814	0.0065	W 56-18-46.32415	0.0065	-4.30557	0.0065
9	S 34-46-47.00561	0.0084	W 56-19-21.97972	0.0084	-4.20270	0.0084

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

PRE_ANALISIS.txt
Covariance Matrix

Station

10						
Latitude	S	34-47-06.54775	0.000045107			
Longitude	W	56-15-37.11161	-0.000000000	0.000045107		
Ellip Hgt		-4.31330	-0.000000000	-0.000000000	0.000045107	
29						
Latitude	S	34-45-13.25514	0.000072581			
Longitude	W	56-18-16.94364	-0.000000000	0.000072581		
Ellip Hgt		-4.16455	-0.000000000	-0.000000000	0.000072581	
8						
Latitude	S	34-48-51.06814	0.000041795			
Longitude	W	56-18-46.32415	-0.000000000	0.000041795		
Ellip Hgt		-4.30557	-0.000000000	-0.000000000	0.000041795	
9						
Latitude	S	34-46-47.00561	0.000071094			
Longitude	W	56-19-21.97972	-0.000000000	0.000071094		
Ellip Hgt		-4.20270	-0.000000000	-0.000000000	0.000071094	

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
10	NA	0.01316
29	NA	0.01669
8	NA	0.01267
9	NA	0.01652

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
10	29	0.01381
10	9	0.01419
8	10	0.01258
8	29	0.01383
8	9	0.01310
9	29	0.01260

□

PRE_ANALISIS.txt

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
10	29	5357.9017	0.0138	2.5768	1:388074
10	9	5748.8416	0.0142	2.4679	1:405206
8	10	5788.5291	0.0126	2.1728	1:460235
8	29	6753.4989	0.0138	2.0474	1:488426
8	9	3929.0558	0.0131	3.3334	1:299990
9	29	3328.8712	0.0126	3.7843	1:264246

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
10	29	5357.9017	0.0138	2.5768	1:388074
10	8	5788.5291	0.0126	2.1728	1:460235
10	9	5748.8416	0.0142	2.4679	1:405206
29	8	6753.4989	0.0138	2.0474	1:488426
29	9	3328.8712	0.0126	3.7843	1:264246
8	9	3929.0558	0.0131	3.3334	1:299990

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
10	0.0067	2.4477	0.0164
	0.0067	2.7876	0.0187
29	0.0085	2.4477	0.0209
	0.0085	2.7876	0.0237
8	0.0065	2.4477	0.0158
	0.0065	2.7876	0.0180
9	0.0084	2.4477	0.0206
	0.0084	2.7876	0.0235

□

Connected Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT Radius (39.35)	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
10	29				
0.0070	2.4477	0.0172	5357.9017	3.2191	1:310644
0.0070	2.7876	0.0196	5357.9017	3.6661	1:272773
10	9				
0.0072	2.4477	0.0177	5748.8416	3.0830	1:324357
0.0072	2.7876	0.0202	5748.8416	3.5111	1:284815
8	10				
0.0064	2.4477	0.0157	5788.5291	2.7144	1:368407
0.0064	2.7876	0.0179	5788.5291	3.0912	1:323495
8	29				
0.0071	2.4477	0.0173	6753.4989	2.5577	1:390974
0.0071	2.7876	0.0197	6753.4989	2.9128	1:343310
8	9				
0.0067	2.4477	0.0164	3929.0558	4.1643	1:240135
0.0067	2.7876	0.0186	3929.0558	4.7425	1:210860
9	29				
0.0064	2.4477	0.0157	3328.8712	4.7276	1:211523
0.0064	2.7876	0.0179	3328.8712	5.3840	1:185736

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT Radius (39.35)	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
10	29				
0.0070	2.4477	0.0172	5357.9017	3.2191	1:310644
0.0070	2.7876	0.0196	5357.9017	3.6661	1:272773
10	8				
0.0064	2.4477	0.0157	5788.5291	2.7144	1:368407
0.0064	2.7876	0.0179	5788.5291	3.0912	1:323495
10	9				
0.0072	2.4477	0.0177	5748.8416	3.0830	1:324357
0.0072	2.7876	0.0202	5748.8416	3.5111	1:284815
29	8				
0.0071	2.4477	0.0173	6753.4989	2.5577	1:390974
0.0071	2.7876	0.0197	6753.4989	2.9128	1:343310
29	9				

PRE_ANALISIS.txt

0.0064	2.4477	0.0157	3328.8712	4.7276	1:211523
0.0064	2.7876	0.0179	3328.8712	5.3840	1:185736

8	9				
0.0067	2.4477	0.0164	3929.0558	4.1643	1:240135
0.0067	2.7876	0.0186	3929.0558	4.7425	1:210860

□

Station 2D Error Ellipses

Confidence Level	0.950			
Expansion 1D	Chi Square	1.959		
Expansion 2D	Chi Square	2.448	(1st row)	
Expansion 2D	'F'	2.788	(2nd row)	

AT	Major	Minor	Azimuth	Height
10	0.0164	0.0164	97.5	0.0132
10	0.0187	0.0187	97.5	0.0132
29	0.0209	0.0209	94.3	0.0167
29	0.0237	0.0237	94.3	0.0167
8	0.0158	0.0158	94.6	0.0127
8	0.0180	0.0180	94.6	0.0127
9	0.0206	0.0206	94.2	0.0165
9	0.0235	0.0235	94.2	0.0165

□

Connected Station 2D Error Ellipses

Confidence Level	0.950			
Expansion 1D	Chi Square	1.959		
Expansion 2D	Chi Square	2.448	(1st row)	
Expansion 2D	'F'	2.788	(2nd row)	

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
10			29					
0.0172	0.0172	0.0172	130.8	0.0138	5357.9017	3.2193	1:310627	
0.0196	0.0196	0.0196	130.8	0.0138	5357.9017	3.6660	1:272774	
10			9					
0.0177	0.0177	0.0177	96.0	0.0142	5748.8416	3.0832	1:324340	
0.0202	0.0202	0.0202	96.0	0.0142	5748.8416	3.5110	1:284816	
8			10					
0.0157	0.0157	0.0157	56.1	0.0126	5788.5291	2.7145	1:368387	
0.0179	0.0179	0.0179	56.1	0.0126	5788.5291	3.0912	1:323495	
8			29					
0.0173	0.0173	0.0173	6.3	0.0138	6753.4989	2.5579	1:390953	
0.0197	0.0197	0.0197	6.3	0.0138	6753.4989	2.9128	1:343311	
8			9					
0.0164	0.0164	0.0164	166.7	0.0131	3929.0558	4.1645	1:240122	
0.0186	0.0186	0.0186	166.7	0.0131	3929.0558	4.7425	1:210861	

9 29

			PRE_ANALISIS.txt			
0.0157	0.0157	29.7	0.0126	3328.8712	4.7279	1:211511
0.0179	0.0179	29.7	0.0126	3328.8712	5.3840	1:185736

□

All Station Pairs 2D Error Ellipses

Confidence Level	0.950
Expansion 1D	Chi Square 1.959
Expansion 2D	Chi Square 2.448 (1st row)
Expansion 2D	'F' 2.788 (2nd row)

AT	TO	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
10	29	0.0172	0.0172	130.8	0.0138	5357.9017	3.2193	1:310627
		0.0196	0.0196	130.8	0.0138	5357.9017	3.6660	1:272774
10	8	0.0157	0.0157	56.1	0.0126	5788.5291	2.7145	1:368387
		0.0179	0.0179	56.1	0.0126	5788.5291	3.0912	1:323495
10	9	0.0177	0.0177	96.0	0.0142	5748.8416	3.0832	1:324340
		0.0202	0.0202	96.0	0.0142	5748.8416	3.5110	1:284816
29	8	0.0173	0.0173	6.3	0.0138	6753.4989	2.5579	1:390953
		0.0197	0.0197	6.3	0.0138	6753.4989	2.9128	1:343311
29	9	0.0157	0.0157	29.7	0.0126	3328.8712	4.7279	1:211511
		0.0179	0.0179	29.7	0.0126	3328.8712	5.3840	1:185736
8	9	0.0164	0.0164	166.7	0.0131	3929.0558	4.1645	1:240122
		0.0186	0.0186	166.7	0.0131	3929.0558	4.7425	1:210861

□

Station 3D Error Ellipsoids

Confidence Level	0.950
Expansion 3D	Chi Square 2.795

AT	Major	Medium	Minor
10	0.0188	0.0188	0.0188
Azimuth	72.4	100.1	8.4
Zenith	15.3	76.4	83.2
29	0.0238	0.0238	0.0238
Azimuth	85.2	95.2	4.8
Zenith	13.0	77.2	87.8
8	0.0181	0.0181	0.0181
Azimuth	92.5	112.3	6.3
Zenith	115.4	26.8	82.1
9	0.0236	0.0236	0.0236
Azimuth	4.5	99.6	10.6

Zenith 156.3

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
 Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
10	0.0197	29	0.0197	0.0197	5357.9017	3.6762
Azimuth	6.5		122.4	40.8		1:272019
Zenith	32.4		74.5	117.7		
10	0.0202	9	0.0202	0.0202	5748.8416	3.5208
Azimuth	125.7		66.4	6.0		1:284027
Zenith	125.6		54.4	124.6		
8	0.0179	10	0.0179	0.0179	5788.5291	3.0998
Azimuth	141.3		54.9	146.1		1:322600
Zenith	30.1		87.9	120.0		
8	0.0197	29	0.0197	0.0197	6753.4989	2.9209
Azimuth	170.4		7.5	96.3		1:342360
Zenith	15.5		104.9	85.6		
8	0.0187	9	0.0187	0.0187	3929.0558	4.7556
Azimuth	85.9		167.0	76.7		1:210277
Zenith	9.2		88.6	99.1		
9	0.0180	29	0.0180	0.0180	3328.8712	5.3989
Azimuth	119.7		29.7	119.7		1:185222
Zenith	161.0		90.0	71.0		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
 Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
10	0.0197	29	0.0197	0.0197	5357.9017	3.6762
Azimuth	6.5		122.4	40.8		1:272019
Zenith	32.4		74.5	117.7		
10	0.0179	8	0.0179	0.0179	5788.5291	3.0998
Azimuth	141.3		54.9	146.1		1:322600
Zenith	30.1		87.9	120.0		

PRE_ANALISIS.txt

10	9	0.0202	0.0202	0.0202	5748.8416	3.5208
Azimuth		125.7	66.4	6.0		1:284027
Zenith		125.6	54.4	124.6		
29	8	0.0197	0.0197	0.0197	6753.4989	2.9209
Azimuth		170.4	7.5	96.3		1:342360
Zenith		15.5	104.9	85.6		
29	9	0.0180	0.0180	0.0180	3328.8712	5.3989
Azimuth		119.7	29.7	119.7		1:185222
Zenith		161.0	90.0	71.0		
8	9	0.0187	0.0187	0.0187	3929.0558	4.7556
Azimuth		85.9	167.0	76.7		1:210277
Zenith		9.2	88.6	99.1		

BLOQUE 7

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	9	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	15		
Num Stations	3		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parm	9		
Direction Parm	0		
Scale Parm	0		
Rotation Parm N	0		
Rotation Parm E	0		
Rotation Parm Up	0		
TOTAL PARMS	9		
Degrees Of Freedom	6	Use Full Covariance	Yes

□

Analized Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
28	S 34-43-20.21421	0.0092	W 56-19-23.24482	0.0092	-4.05615	0.0092
29	S 34-45-13.25514	0.0067	W 56-18-16.94364	0.0067	-4.16455	0.0067
9	S 34-46-47.00561	0.0067	W 56-19-21.97972	0.0067	-4.20270	0.0067

PRE_ANALISIS.txt

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix				
28					
Latitude	S	34-43-20.21421	0.000084829		
Longitude	W	56-19-23.24482	0.000000000	0.000084829	
Ellip Hgt		-4.05615	-0.000000000	0.000000000	0.000084829
29					
Latitude	S	34-45-13.25514	0.000045183		
Longitude	W	56-18-16.94364	-0.000000000	0.000045183	
Ellip Hgt		-4.16455	-0.000000000	-0.000000000	0.000045183
9					
Latitude	S	34-46-47.00561	0.000044807		
Longitude	W	56-19-21.97972	-0.000000000	0.000044807	
Ellip Hgt		-4.20270	-0.000000000	-0.000000000	0.000044807

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level	0.950	
Expansion 1D	Chi Square	1.959
AT	TO	Height Confidence Interval
28	NA	0.01805
29	NA	0.01317
9	NA	0.01312

□

Connected Station Height Confidence Intervals

Confidence Level	0.950	
Expansion 1D	Chi Square	1.959
AT	TO	Height Confidence Interval
29	28	0.01445
9	28	0.01537
9	29	0.01181

□

Distance Errors (connected stations)

Confidence Level	0.950	
Expansion 1D	Chi Square	1.959

PRE_ANALISIS.txt

AT	TO	Distance	Stan Dev	PPM	Ratio
29	28	3870.2385	0.0144	3.7326	1:267908
9	28	6372.4699	0.0154	2.4123	1:414549
9	29	3328.8712	0.0118	3.5471	1:281922

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
28	29	3870.2385	0.0144	3.7326	1:267908
28	9	6372.4699	0.0154	2.4123	1:414549
29	9	3328.8712	0.0118	3.5471	1:281922

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
28	0.0092	2.4477	0.0225
	0.0092	3.2073	0.0295
29	0.0067	2.4477	0.0165
	0.0067	3.2073	0.0216
9	0.0067	2.4477	0.0164
	0.0067	3.2073	0.0215

□

Connected Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
29	28	0.0074	2.4477	0.0180	3870.2385	4.6630	1:214454
		0.0074	3.2073	0.0236	3870.2385	6.1099	1:163669
9	28	0.0078	2.4477	0.0192	6372.4699	3.0135	1:331837
		0.0078	3.2073	0.0252	6372.4699	3.9486	1:253254
9	29	0.0060	2.4477	0.0148	3328.8712	4.4312	1:225672

0.0060 3.2073 0.0193 3328.8712 5.8062 1:172230

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (95.00)	Chord	PPM	Ratio
28	29	0.0180	3870.2385	4.6630	1:214454
0.0074	2.4477	0.0236	3870.2385	6.1099	1:163669
0.0074	3.2073				
28	9	0.0192	6372.4699	3.0135	1:331837
0.0078	2.4477	0.0252	6372.4699	3.9486	1:253254
0.0078	3.2073				
29	9	0.0148	3328.8712	4.4312	1:225672
0.0060	2.4477	0.0193	3328.8712	5.8062	1:172230
0.0060	3.2073				

□

Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 3.207 (2nd row)

AT	Major	Minor	Azimuth	Height
28	0.0225	0.0225	135.0	0.0180
28	0.0295	0.0295	135.0	0.0180
29	0.0165	0.0165	95.1	0.0132
29	0.0216	0.0216	95.1	0.0132
9	0.0164	0.0164	94.1	0.0131
9	0.0215	0.0215	94.1	0.0131

□

Connected Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 3.207 (2nd row)

AT	TO	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
29	28	0.0180	0.0180	154.3	0.0144	3870.2385	4.6633	1:214442
0.0236	0.0236	154.3	0.0144	3870.2385	6.1099	1:163669		
9	28	0.0192	0.0192	179.7	0.0154	6372.4699	3.0137	1:331819

0.0252	0.0252	179.7	PRE_ANALISISIS.txt 0.0154	6372.4699	3.9486	1:253255
9	29					
0.0148	0.0148	29.7	0.0118	3328.8712	4.4314	1:225660
0.0193	0.0193	29.7	0.0118	3328.8712	5.8062	1:172231

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
Expansion 1D Chi Square 1.959
Expansion 2D Chi Square 2.448 (1st row)
Expansion 2D 'F' 3.207 (2nd row)

AT	TO	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
28	29	0.0180	0.0180	154.3	0.0144	3870.2385	4.6633	1:214442
0.0236		0.0236		154.3	0.0144	3870.2385	6.1099	1:163669
28	9	0.0192	0.0192	179.7	0.0154	6372.4699	3.0137	1:331819
0.0252		0.0252		179.7	0.0154	6372.4699	3.9486	1:253255
29	9	0.0148	0.0148	29.7	0.0118	3328.8712	4.4314	1:225660
0.0193		0.0193		29.7	0.0118	3328.8712	5.8062	1:172231

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
28	0.0257	0.0257	0.0257
Azimuth	179.8	89.4	179.0
Zenith	135.0	89.6	45.0
29	0.0188	0.0188	0.0188
Azimuth	93.6	98.1	5.9
Zenith	135.0	45.1	87.8
9	0.0187	0.0187	0.0187
Azimuth	92.7	151.8	4.8
Zenith	98.5	16.2	76.3

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	TO	Major	Medium	Minor	Chord	PPM
----	----	-------	--------	-------	-------	-----

PRE_ANALISIS.txt

29	28				
Azimuth	0.0206	0.0206	0.0206	3870.2385	5.3251
Zenith	147.1	7.8	64.3		1:187789
	112.4	28.6	106.8		
9	28				
Azimuth	0.0219	0.0219	0.0219	6372.4699	3.4414
Zenith	179.6	0.2	89.7		1:290577
	113.6	23.6	90.2		
9	29				
Azimuth	0.0168	0.0168	0.0168	3328.8712	5.0604
Zenith	36.5	168.1	119.7		1:197612
	109.0	27.4	71.0		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
28	29					
Azimuth	0.0206	0.0206	0.0206	3870.2385	5.3251	
Zenith	147.1	7.8	64.3		1:187789	
	112.4	28.6	106.8			
28	9					
Azimuth	0.0219	0.0219	0.0219	6372.4699	3.4414	
Zenith	179.6	0.2	89.7		1:290577	
	113.6	23.6	90.2			
29	9					
Azimuth	0.0168	0.0168	0.0168	3328.8712	5.0604	
Zenith	36.5	168.1	119.7		1:197612	
	109.0	27.4	71.0			

BLOQUE 8

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parm	12		
Direction Parm	0		
Scale Parm	0		
Rotation Parm N	0		
Rotation Parm E	0		

PRE_ANALISIS.txt

Rotation Parms Up 0
 TOTAL PARMS 12

Degrees Of Freedom 12 Use Full Covariance Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
11	S 34-50-14.30702	0.0077	W 56-10-32.25185	0.0077	-4.57664	0.0077
12	S 34-49-17.63465	0.0059	W 56-13-08.12480	0.0059	-4.46977	0.0059
26	S 34-52-35.64048	0.0078	W 56-11-11.68639	0.0078	-4.65923	0.0078
6	S 34-52-03.18202	0.0054	W 56-13-37.92316	0.0054	-4.57359	0.0054

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix					
11	Latitude	S	34-50-14.30702	0.000059484		
	Longitude	W	56-10-32.25185	0.000000000	0.000059484	
	Ellip Hgt		-4.57664	0.000000000	0.000000000	0.000059484
12	Latitude	S	34-49-17.63465	0.000035117		
	Longitude	W	56-13-08.12480	0.000000000	0.000035117	
	Ellip Hgt		-4.46977	-0.000000000	-0.000000000	0.000035117
26	Latitude	S	34-52-35.64048	0.000060434		
	Longitude	W	56-11-11.68639	0.000000000	0.000060434	
	Ellip Hgt		-4.65923	0.000000000	0.000000000	0.000060434
6	Latitude	S	34-52-03.18202	0.000028908		
	Longitude	W	56-13-37.92316	0.000000000	0.000028908	
	Ellip Hgt		-4.57359	0.000000000	-0.000000000	0.000028908

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
 Expansion 1D Chi Square 1.959

AT TO Height Confidence Interval

11	NA	PRE_ANALISIS.txt 0.01511
12	NA	0.01161
26	NA	0.01523
6	NA	0.01053

□

Connected Station Height Confidence Intervals

Confidence Level	0.950	
Expansion 1D	Chi Square	1.959
AT	TO	Height Confidence Interval
12	11	0.01281
26	11	0.01317
26	12	0.01356
6	11	0.01315
6	12	0.01131
6	26	0.01287

□

Distance Errors (connected stations)

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
AT	TO	Distance	Stan Dev	PPM	Ratio
12	11	4328.7109	0.0128	2.9592	1:337934
26	11	4469.0529	0.0132	2.9477	1:339248
26	12	6780.9567	0.0136	2.0000	1:500005
6	11	5788.2215	0.0132	2.2727	1:440010
6	12	5157.3758	0.0113	2.1926	1:456086
6	26	3846.3402	0.0129	3.3456	1:298903

□

Distance Errors (all station pairs)

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
AT	TO	Distance	Stan Dev	PPM	Ratio
11	12	4328.7109	0.0128	2.9592	1:337934
11	26	4469.0529	0.0132	2.9477	1:339248

		PRE_ANALISIS.txt			
11	6	5788.2215	0.0132	2.2727	1:440010
12	26	6780.9567	0.0136	2.0000	1:500005
12	6	5157.3758	0.0113	2.1926	1:456086
26	6	3846.3402	0.0129	3.3456	1:298903

□

Station Error Circles

Confidence Level		0.950	
Expansion 2D		Chi Square Scaler (1st row)	
Expansion 2D		'F' Scaler (2nd row)	
AT	Radius (39.35)	Scaler	Radius (95.00)
11	0.0077	2.4477	0.0189
	0.0077	2.7876	0.0215
12	0.0059	2.4477	0.0145
	0.0059	2.7876	0.0165
26	0.0078	2.4477	0.0190
	0.0078	2.7876	0.0217
6	0.0054	2.4477	0.0132
	0.0054	2.7876	0.0150

□

Connected Station Error Circles

Confidence Level		0.950				
Expansion 2D		Chi Square Scaler (1st row)				
Expansion 2D		'F' Scaler (2nd row)				
AT	Radius (39.35)	TO Scaler	Radius (95.00)	Chord	PPM	Ratio
12	0.0065	11	0.0160	4328.7109	3.6967	1:270508
	0.0065	2.4477	0.0182	4328.7109	4.2100	1:237530
26	0.0067	11	0.0165	4469.0529	3.6824	1:271560
	0.0067	2.4477	0.0187	4469.0529	4.1937	1:238454
26	0.0069	12	0.0169	6780.9567	2.4985	1:400242
	0.0069	2.4477	0.0193	6780.9567	2.8454	1:351449
6	0.0067	11	0.0164	5788.2215	2.8392	1:352218
	0.0067	2.4477	0.0187	5788.2215	3.2333	1:309279
6	0.0058	12	0.0141	5157.3758	2.7391	1:365086
	0.0058	2.4477	0.0161	5157.3758	3.1194	1:320578
6	0.0066	26	0.0161	3846.3402	4.1795	1:239265

0.0066 2.7876 0.0183 PRE_ANALISISIS.txt 3846.3402 4.7597 1:210096

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
11	12	0.0065	2.4477	0.0160	4328.7109	3.6967	1:270508
		0.0065	2.7876	0.0182	4328.7109	4.2100	1:237530
11	26	0.0067	2.4477	0.0165	4469.0529	3.6824	1:271560
		0.0067	2.7876	0.0187	4469.0529	4.1937	1:238454
11	6	0.0067	2.4477	0.0164	5788.2215	2.8392	1:352218
		0.0067	2.7876	0.0187	5788.2215	3.2333	1:309279
12	26	0.0069	2.4477	0.0169	6780.9567	2.4985	1:400242
		0.0069	2.7876	0.0193	6780.9567	2.8454	1:351449
12	6	0.0058	2.4477	0.0141	5157.3758	2.7391	1:365086
		0.0058	2.7876	0.0161	5157.3758	3.1194	1:320578
26	6	0.0066	2.4477	0.0161	3846.3402	4.1795	1:239265
		0.0066	2.7876	0.0183	3846.3402	4.7597	1:210096

□

Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	Azimuth	Height
11	0.0189	0.0189	6.1	0.0151
11	0.0215	0.0215	6.1	0.0151
12	0.0145	0.0145	89.2	0.0116
12	0.0165	0.0165	89.2	0.0116
26	0.0190	0.0190	0.7	0.0152
26	0.0217	0.0217	0.7	0.0152
6	0.0132	0.0132	1.8	0.0105
6	0.0150	0.0150	1.8	0.0105

□

Connected Station 2D Error Ellipses

PRE_ANALISIS.txt

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
12			11					
0.0160		0.0160		113.9	0.0128	4328.7109	3.6969	1:270493
0.0182		0.0182		113.9	0.0128	4328.7109	4.2100	1:237531
26			11					
0.0165		0.0165		12.9	0.0132	4469.0529	3.6826	1:271545
0.0187		0.0187		12.9	0.0132	4469.0529	4.1937	1:238455
26			12					
0.0169		0.0169		154.2	0.0136	6780.9567	2.4986	1:400221
0.0193		0.0193		154.2	0.0136	6780.9567	2.8454	1:351449
6			11					
0.0164		0.0164		54.5	0.0132	5788.2215	2.8393	1:352199
0.0187		0.0187		54.5	0.0132	5788.2215	3.2333	1:309280
6			12					
0.0141		0.0141		8.4	0.0113	5157.3758	2.7392	1:365066
0.0161		0.0161		8.4	0.0113	5157.3758	3.1194	1:320579
6			26					
0.0161		0.0161		105.1	0.0129	3846.3402	4.1797	1:239252
0.0183		0.0183		105.1	0.0129	3846.3402	4.7597	1:210097

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
11			12					
0.0160		0.0160		113.9	0.0128	4328.7109	3.6969	1:270493
0.0182		0.0182		113.9	0.0128	4328.7109	4.2100	1:237531
11			26					
0.0165		0.0165		12.9	0.0132	4469.0529	3.6826	1:271545
0.0187		0.0187		12.9	0.0132	4469.0529	4.1937	1:238455
11			6					
0.0164		0.0164		54.5	0.0132	5788.2215	2.8393	1:352199
0.0187		0.0187		54.5	0.0132	5788.2215	3.2333	1:309280
12			26					
0.0169		0.0169		154.2	0.0136	6780.9567	2.4986	1:400221
0.0193		0.0193		154.2	0.0136	6780.9567	2.8454	1:351449
12			6					
0.0141		0.0141		8.4	0.0113	5157.3758	2.7392	1:365066

0.0161	0.0161	8.4	PRE_ANALISIS.txt	0.0113	5157.3758	3.1194	1:320579
26	6						
0.0161	0.0161	105.1	0.0129	3846.3402	4.1797	1:239252	
0.0183	0.0183	105.1	0.0129	3846.3402	4.7597	1:210097	

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
11	0.0216	0.0216	0.0216
Azimuth	6.9	118.8	95.0
Zenith	83.4	17.2	105.8
12	0.0166	0.0166	0.0166
Azimuth	89.2	89.6	179.2
Zenith	91.6	178.4	90.0
26	0.0217	0.0217	0.0217
Azimuth	1.1	0.7	91.1
Zenith	82.1	172.1	90.1
6	0.0150	0.0150	0.0150
Azimuth	1.8	1.8	91.8
Zenith	87.4	177.4	90.0

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
12	11					
Azimuth	0.0183	0.0183	0.0183	4328.7109	4.2217	1:236873
Zenith	3.6	107.8	23.9			
	34.1	80.5	122.5			
26	11					
Azimuth	0.0188	0.0188	0.0188	4469.0529	4.2053	1:237794
Zenith	8.8	31.1	102.9			
	65.2	26.5	81.2			
26	12					
Azimuth	0.0193	0.0193	0.0193	6780.9567	2.8533	1:350477
Zenith	159.8	113.3	64.2			
	72.3	24.8	106.8			
6	11					
Azimuth	0.0188	0.0188	0.0188	5788.2215	3.2423	1:308424
Zenith	28.2	80.7	144.5			
	52.0	128.0	119.5			

PRE_ANALISIS.txt

6	12				
Azimuth	0.0161	0.0161	0.0161	5157.3758	3.1280
Zenith	98.4	8.4	98.4		1:319692
	174.2	90.0	84.2		
6	26				
Azimuth	0.0184	0.0184	0.0184	3846.3402	4.7729
Zenith	0.5	100.5	15.1		1:209515
	34.8	83.1	123.9		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
11	12					
Azimuth	0.0183	0.0183	0.0183	4328.7109	4.2217	
Zenith	3.6	107.8	23.9		1:236873	
	34.1	80.5	122.5			
11	26					
Azimuth	0.0188	0.0188	0.0188	4469.0529	4.2053	
Zenith	8.8	31.1	102.9		1:237794	
	65.2	26.5	81.2			
11	6					
Azimuth	0.0188	0.0188	0.0188	5788.2215	3.2423	
Zenith	28.2	80.7	144.5		1:308424	
	52.0	128.0	119.5			
12	26					
Azimuth	0.0193	0.0193	0.0193	6780.9567	2.8533	
Zenith	159.8	113.3	64.2		1:350477	
	72.3	24.8	106.8			
12	6					
Azimuth	0.0161	0.0161	0.0161	5157.3758	3.1280	
Zenith	98.4	8.4	98.4		1:319692	
	174.2	90.0	84.2			
26	6					
Azimuth	0.0184	0.0184	0.0184	3846.3402	4.7729	
Zenith	0.5	100.5	15.1		1:209515	
	34.8	83.1	123.9			

BLOQUE 9

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		

PRE_ANALISIS.txt

Num Stations 4
 Fixed In 1D 0
 Fixed In 2D 0
 Fixed In 3D 0
 Float Coord ParmS 12
 Direction ParmS 0
 Scale ParmS 0
 Rotation ParmS N 0
 Rotation ParmS E 0
 Rotation ParmS Up 0
 TOTAL PARMS 12

Degrees Of Freedom 12 Use Full Covariance Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
11	S 34-50-14.30702	0.0062	W 56-10-32.25185	0.0062	-4.57664	0.0062
22	S 34-51-13.30692	0.0082	W 56-07-53.80014	0.0082	-4.68615	0.0082
25	S 34-54-04.31954	0.0084	W 56-09-18.11560	0.0084	-4.77034	0.0084
26	S 34-52-35.64048	0.0062	W 56-11-11.68639	0.0062	-4.65923	0.0062

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix						
11	<table border="1"> <tr> <td>Latitude S 34-50-14.30702</td> <td>0.000038088</td> </tr> <tr> <td>Longitude W 56-10-32.25185</td> <td>-0.000000000 0.000038088</td> </tr> <tr> <td>Ellip Hgt -4.57664</td> <td>0.000000000 -0.000000000 0.000038088</td> </tr> </table>	Latitude S 34-50-14.30702	0.000038088	Longitude W 56-10-32.25185	-0.000000000 0.000038088	Ellip Hgt -4.57664	0.000000000 -0.000000000 0.000038088
Latitude S 34-50-14.30702	0.000038088						
Longitude W 56-10-32.25185	-0.000000000 0.000038088						
Ellip Hgt -4.57664	0.000000000 -0.000000000 0.000038088						
22	<table border="1"> <tr> <td>Latitude S 34-51-13.30692</td> <td>0.000067922</td> </tr> <tr> <td>Longitude W 56-07-53.80014</td> <td>-0.000000000 0.000067922</td> </tr> <tr> <td>Ellip Hgt -4.68615</td> <td>0.000000000 -0.000000000 0.000067922</td> </tr> </table>	Latitude S 34-51-13.30692	0.000067922	Longitude W 56-07-53.80014	-0.000000000 0.000067922	Ellip Hgt -4.68615	0.000000000 -0.000000000 0.000067922
Latitude S 34-51-13.30692	0.000067922						
Longitude W 56-07-53.80014	-0.000000000 0.000067922						
Ellip Hgt -4.68615	0.000000000 -0.000000000 0.000067922						
25	<table border="1"> <tr> <td>Latitude S 34-54-04.31954</td> <td>0.000069932</td> </tr> <tr> <td>Longitude W 56-09-18.11560</td> <td>-0.000000000 0.000069932</td> </tr> <tr> <td>Ellip Hgt -4.77034</td> <td>0.000000000 -0.000000000 0.000069932</td> </tr> </table>	Latitude S 34-54-04.31954	0.000069932	Longitude W 56-09-18.11560	-0.000000000 0.000069932	Ellip Hgt -4.77034	0.000000000 -0.000000000 0.000069932
Latitude S 34-54-04.31954	0.000069932						
Longitude W 56-09-18.11560	-0.000000000 0.000069932						
Ellip Hgt -4.77034	0.000000000 -0.000000000 0.000069932						
26	<table border="1"> <tr> <td>Latitude S 34-52-35.64048</td> <td>0.000038349</td> </tr> <tr> <td>Longitude W 56-11-11.68639</td> <td>-0.000000000 0.000038349</td> </tr> <tr> <td>Ellip Hgt -4.65923</td> <td>0.000000000 -0.000000000 0.000038349</td> </tr> </table>	Latitude S 34-52-35.64048	0.000038349	Longitude W 56-11-11.68639	-0.000000000 0.000038349	Ellip Hgt -4.65923	0.000000000 -0.000000000 0.000038349
Latitude S 34-52-35.64048	0.000038349						
Longitude W 56-11-11.68639	-0.000000000 0.000038349						
Ellip Hgt -4.65923	0.000000000 -0.000000000 0.000038349						

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level	Expansion ID	Chi Square	Height Confidence Interval
0.950		1.959	
AT	TO		
11	NA		0.01209
22	NA		0.01615
25	NA		0.01639
26	NA		0.01213

□

Connected Station Height Confidence Intervals

Confidence Level	Expansion ID	Chi Square	Height Confidence Interval
0.950		1.959	
AT	TO		
11	22		0.01309
25	11		0.01398
25	22		0.01459
26	11		0.01125
26	22		0.01354
26	25		0.01320

□

Distance Errors (connected stations)

Confidence Level	Expansion ID	Chi Square	Distance	Stan Dev	PPM	Ratio
0.950		1.959				
AT	TO					
11	22		4417.0684	0.0131	2.9644	1:337333
25	11		7333.9283	0.0140	1.9069	1:524421
25	22		5688.3503	0.0146	2.5643	1:389971
26	11		4469.0529	0.0112	2.5171	1:397275
26	22		5630.2643	0.0135	2.4044	1:415911
26	25		3972.9355	0.0132	3.3231	1:300921

□

Distance Errors (all station pairs)

PRE_ANALISIS.txt

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
11	22	4417.0684	0.0131	2.9644	1:337333
11	25	7333.9283	0.0140	1.9069	1:524421
11	26	4469.0529	0.0112	2.5171	1:397275
22	25	5688.3503	0.0146	2.5643	1:389971
22	26	5630.2643	0.0135	2.4044	1:415911
25	26	3972.9355	0.0132	3.3231	1:300921

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
11	0.0062	2.4477	0.0151
	0.0062	2.7876	0.0172
22	0.0082	2.4477	0.0202
	0.0082	2.7876	0.0230
25	0.0084	2.4477	0.0205
	0.0084	2.7876	0.0233
26	0.0062	2.4477	0.0152
	0.0062	2.7876	0.0173

□

Connected Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
11	22	0.0067	2.4477	0.0164	4417.0684	3.7033	1:270027
		0.0067	2.7876	0.0186	4417.0684	4.2175	1:237108
25	11	0.0071	2.4477	0.0175	7333.9283	2.3822	1:419787
		0.0071	2.7876	0.0199	7333.9283	2.7129	1:368611
25	22	0.0074	2.4477	0.0182	5688.3503	3.2035	1:312162
		0.0074	2.7876	0.0208	5688.3503	3.6482	1:274106

PRE_ANALISIS.txt

26	11				
	0.0057	2.4477	0.0141	4469.0529	3.1446
		2.7876	0.0160	4469.0529	3.5811
26	22				
	0.0069	2.4477	0.0169	5630.2643	3.0037
		2.7876	0.0193	5630.2643	3.4207
26	25				
	0.0067	2.4477	0.0165	3972.9355	4.1514
		2.7876	0.0188	3972.9355	4.7278

□

All Station Pairs Error Circles

Confidence Level 0.950

Expansion 2D Chi Square Scaler (1st row)

Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
11	22						
	0.0067	2.4477	0.0164	4417.0684	3.7033	1:270027	
		2.7876	0.0186	4417.0684	4.2175	1:237108	
11	25						
	0.0071	2.4477	0.0175	7333.9283	2.3822	1:419787	
		2.7876	0.0199	7333.9283	2.7129	1:368611	
11	26						
	0.0057	2.4477	0.0141	4469.0529	3.1446	1:318010	
		2.7876	0.0160	4469.0529	3.5811	1:279241	
22	25						
	0.0074	2.4477	0.0182	5688.3503	3.2035	1:312162	
		2.7876	0.0208	5688.3503	3.6482	1:274106	
22	26						
	0.0069	2.4477	0.0169	5630.2643	3.0037	1:332927	
		2.7876	0.0193	5630.2643	3.4207	1:292340	
25	26						
	0.0067	2.4477	0.0165	3972.9355	4.1514	1:240880	
		2.7876	0.0188	3972.9355	4.7278	1:211514	

□

Station 2D Error Ellipses

Confidence Level 0.950

Expansion 1D Chi Square 1.959

Expansion 2D Chi Square 2.448 (1st row)

Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	Azimuth	Height
11	0.0151	0.0151	135.0	0.0121
11	0.0172	0.0172	135.0	0.0121
22	0.0202	0.0202	93.7	0.0161
22	0.0230	0.0230	93.7	0.0161

PRE_ANALISIS.txt

25	0.0205	0.0205	93.0	0.0164
25	0.0233	0.0233	93.0	0.0164
26	0.0152	0.0152	135.0	0.0121
26	0.0173	0.0173	135.0	0.0121

□

Connected Station 2D Error Ellipses

Confidence Level	0.950
Expansion 1D	Chi Square 1.959
Expansion 2D	Chi Square 2.448 (1st row)
Expansion 2D	'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
11	0.0164	0.0164	22	114.4	0.0131	4417.0684	3.7035	1:270012
	0.0186	0.0186		114.4	0.0131	4417.0684	4.2175	1:237108
25	0.0175	0.0175	11	165.2	0.0140	7333.9283	2.3823	1:419764
	0.0199	0.0199		165.2	0.0140	7333.9283	2.7129	1:368611
25	0.0182	0.0182	22	22.0	0.0146	5688.3503	3.2036	1:312145
	0.0208	0.0208		22.0	0.0146	5688.3503	3.6482	1:274107
26	0.0141	0.0141	11	12.9	0.0112	4469.0529	3.1447	1:317992
	0.0160	0.0160		12.9	0.0112	4469.0529	3.5811	1:279242
26	0.0169	0.0169	22	63.1	0.0135	5630.2643	3.0038	1:332909
	0.0193	0.0193		63.1	0.0135	5630.2643	3.4207	1:292341
26	0.0165	0.0165	25	133.6	0.0132	3972.9355	4.1517	1:240867
	0.0188	0.0188		133.6	0.0132	3972.9355	4.7278	1:211515

□

All Station Pairs 2D Error Ellipses

Confidence Level	0.950
Expansion 1D	Chi Square 1.959
Expansion 2D	Chi Square 2.448 (1st row)
Expansion 2D	'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
11	0.0164	0.0164	22	114.4	0.0131	4417.0684	3.7035	1:270012
	0.0186	0.0186		114.4	0.0131	4417.0684	4.2175	1:237108
11	0.0175	0.0175	25	165.2	0.0140	7333.9283	2.3823	1:419764
	0.0199	0.0199		165.2	0.0140	7333.9283	2.7129	1:368611

PRE_ANALISIS.txt

11	26					
0.0141	0.0141	12.9	0.0112	4469.0529	3.1447	1:317992
0.0160	0.0160	12.9	0.0112	4469.0529	3.5811	1:279242
22	25					
0.0182	0.0182	22.0	0.0146	5688.3503	3.2036	1:312145
0.0208	0.0208	22.0	0.0146	5688.3503	3.6482	1:274107
22	26					
0.0169	0.0169	63.1	0.0135	5630.2643	3.0038	1:332909
0.0193	0.0193	63.1	0.0135	5630.2643	3.4207	1:292341
25	26					
0.0165	0.0165	133.6	0.0132	3972.9355	4.1517	1:240867
0.0188	0.0188	133.6	0.0132	3972.9355	4.7278	1:211515

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
11	0.0173	0.0173	0.0173
Azimuth	23.0	135.9	46.0
Zenith	2.5	91.0	92.3
22	0.0230	0.0230	0.0230
Azimuth	3.6	92.6	2.6
Zenith	173.9	90.1	96.1
25	0.0234	0.0234	0.0234
Azimuth	3.0	92.9	2.9
Zenith	175.4	90.0	94.6
26	0.0173	0.0173	0.0173
Azimuth	152.4	62.0	151.6
Zenith	44.9	90.4	134.9

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
11	22					
Azimuth	0.0187	0.0187	0.0187	4417.0684	4.2292	1:236452
Zenith	101.4	165.5	24.4			
	70.4	39.2	122.4			
25	11					
Azimuth	0.0200	0.0200	0.0200	7333.9283	2.7204	1:367591
Zenith	155.2	175.1	75.2			
	134.1	45.9	100.1			

PRE_ANALISIS.txt

25	22				
0.0208	0.0208	0.0208	0.0208	5688.3503	3.6583
Azimuth 68.4	18.5	112.0			1:273348
Zenith 19.9	76.9	75.4			
26	11				
0.0160	0.0160	0.0160	0.0160	4469.0529	3.5911
Azimuth 102.9	12.9	102.9			1:278469
Zenith 171.2	90.0	81.2			
26	22				
0.0193	0.0193	0.0193	0.0193	5630.2643	3.4302
Azimuth 72.5	3.7	153.1			1:291531
Zenith 104.7	35.8	121.9			
26	25				
0.0188	0.0188	0.0188	0.0188	3972.9355	4.7409
Azimuth 96.5	148.6	43.6			1:210929
Zenith 40.0	117.2	116.8			

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	TO	Major	Medium	Minor	Chord	PPM
11	22					
0.0187	0.0187	0.0187	0.0187	4417.0684	4.2292	
Azimuth 101.4	165.5	24.4			1:236452	
Zenith 70.4	39.2	122.4				
11	25					
0.0200	0.0200	0.0200	0.0200	7333.9283	2.7204	
Azimuth 155.2	175.1	75.2			1:367591	
Zenith 134.1	45.9	100.1				
11	26					
0.0160	0.0160	0.0160	0.0160	4469.0529	3.5911	
Azimuth 102.9	12.9	102.9			1:278469	
Zenith 171.2	90.0	81.2				
22	25					
0.0208	0.0208	0.0208	0.0208	5688.3503	3.6583	
Azimuth 68.4	18.5	112.0			1:273348	
Zenith 19.9	76.9	75.4				
22	26					
0.0193	0.0193	0.0193	0.0193	5630.2643	3.4302	
Azimuth 72.5	3.7	153.1			1:291531	
Zenith 104.7	35.8	121.9				
25	26					
0.0188	0.0188	0.0188	0.0188	3972.9355	4.7409	
Azimuth 96.5	148.6	43.6			1:210929	
Zenith 40.0	117.2	116.8				

BLOQUE 10

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord ParmS	12		
Direction ParmS	0		
Scale ParmS	0		
Rotation ParmS N	0		
Rotation ParmS E	0		
Rotation ParmS Up	0		
TOTAL PARMS	12		
Degrees Of Freedom	12	Use Full Covariance	Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
25	S 34-54-04.31954	0.0064	W 56-09-18.11560	0.0064	-4.77034	0.0064
26	S 34-52-35.64048	0.0062	W 56-11-11.68639	0.0062	-4.65923	0.0062
27	S 34-54-34.94723	0.0078	W 56-11-51.72702	0.0078	-4.72600	0.0078
FI	S 34-54-58.56661	0.0076	W 56-09-57.22739	0.0076	-4.79173	0.0076

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix					
25						
Latitude	S	34-54-04.31954	0.000041109			
Longitude	W	56-09-18.11560	-0.000000000	0.000041109		
Ellip Hgt		-4.77034	0.000000000	0.000000000	0.000041109	
26						
Latitude	S	34-52-35.64048	0.000038908			
Longitude	W	56-11-11.68639	-0.000000000	0.000038908		
Ellip Hgt		-4.65923	0.000000000	0.000000000	0.000038908	

27


```

PRE_ANALISIS.txt
Latitude S 34-54-34.94723 0.000061208
Longitude W 56-11-51.72702 -0.000000000 0.000061208
Ellip Hgt -4.72600 0.000000000 0.000000000 0.000061208

FI
Latitude S 34-54-58.56661 0.000058271
Longitude W 56-09-57.22739 -0.000000000 0.000058271
Ellip Hgt -4.79173 0.000000000 0.000000000 0.000058271

```

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
25	NA	0.01256
26	NA	0.01222
27	NA	0.01533
FI	NA	0.01496

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
25	FI	0.01058
26	25	0.01077
26	27	0.01203
26	FI	0.01192
27	25	0.01154
FI	27	0.01149

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
25	FI	1944.3242	0.0106	5.4403	1:183813
26	25	3972.9355	0.0108	2.7102	1:368978
26	27	3814.5637	0.0120	3.1543	1:317026

PRE_ANALISIS.txt

26	FI	4793.0320	0.0119	2.4868	1:402119
27	25	4012.3139	0.0115	2.8751	1:347808
FI	27	2996.2809	0.0115	3.8342	1:260811

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
25	26	3972.9355	0.0108	2.7102	1:368978
25	27	4012.3139	0.0115	2.8751	1:347808
25	FI	1944.3242	0.0106	5.4403	1:183813
26	27	3814.5637	0.0120	3.1543	1:317026
26	FI	4793.0320	0.0119	2.4868	1:402119
27	FI	2996.2809	0.0115	3.8342	1:260811

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
25	0.0064	2.4477	0.0157
	0.0064	2.7876	0.0179
26	0.0062	2.4477	0.0153
	0.0062	2.7876	0.0174
27	0.0078	2.4477	0.0192
	0.0078	2.7876	0.0218
FI	0.0076	2.4477	0.0187
	0.0076	2.7876	0.0213

□

Connected Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
25	FI	0.0054	2.4477	0.0132	1944.3242	6.7963	1:147138

PRE_ANALISISIS.txt					
	0.0054	2.7876	0.0150	1944.3242	7.7399 1:129200
26		25			
	0.0055	2.4477	0.0135	3972.9355	3.3857 1:295358
	0.0055	2.7876	0.0153	3972.9355	3.8558 1:259351
26		27			
	0.0061	2.4477	0.0150	3814.5637	3.9406 1:253772
	0.0061	2.7876	0.0171	3814.5637	4.4876 1:222834
26		FI			
	0.0061	2.4477	0.0149	4793.0320	3.1067 1:321887
	0.0061	2.7876	0.0170	4793.0320	3.5380 1:282646
27		25			
	0.0059	2.4477	0.0144	4012.3139	3.5918 1:278412
	0.0059	2.7876	0.0164	4012.3139	4.0905 1:244471
FI		27			
	0.0059	2.4477	0.0144	2996.2809	4.7899 1:208773
	0.0059	2.7876	0.0163	2996.2809	5.4549 1:183322

□

All Station Pairs Error Circles

Confidence Level 0.950					
Expansion 2D Chi Square Scaler (1st row)					
Expansion 2D 'F' Scaler (2nd row)					
AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
25	26				
0.0055	2.4477	0.0135	3972.9355	3.3857	1:295358
0.0055	2.7876	0.0153	3972.9355	3.8558	1:259351
25	27				
0.0059	2.4477	0.0144	4012.3139	3.5918	1:278412
0.0059	2.7876	0.0164	4012.3139	4.0905	1:244471
25	FI				
0.0054	2.4477	0.0132	1944.3242	6.7963	1:147138
0.0054	2.7876	0.0150	1944.3242	7.7399	1:129200
26	27				
0.0061	2.4477	0.0150	3814.5637	3.9406	1:253772
0.0061	2.7876	0.0171	3814.5637	4.4876	1:222834
26	FI				
0.0061	2.4477	0.0149	4793.0320	3.1067	1:321887
0.0061	2.7876	0.0170	4793.0320	3.5380	1:282646
27	FI				
0.0059	2.4477	0.0144	2996.2809	4.7899	1:208773
0.0059	2.7876	0.0163	2996.2809	5.4549	1:183322

□

Station 2D Error Ellipses

Confidence Level 0.950
Expansion 1D Chi Square 1.959

		PRE_ANALISIS.txt			
Expansion	2D	Chi Square	2.448	(1st row)	
Expansion	2D	'F'	2.788	(2nd row)	
AT		Major	Minor	Azimuth	Height
25		0.0157	0.0157	90.5	0.0126
25		0.0179	0.0179	90.5	0.0126
26		0.0153	0.0153	101.7	0.0122
26		0.0174	0.0174	101.7	0.0122
27		0.0192	0.0192	103.3	0.0153
27		0.0218	0.0218	103.3	0.0153
FI		0.0187	0.0187	92.7	0.0150
FI		0.0213	0.0213	92.7	0.0150

□

Connected Station 2D Error Ellipses

		Confidence Level						
		0.950						
Expansion	1D	Chi Square	1.959					
Expansion	2D	Chi Square	2.448	(1st row)				
Expansion	2D	'F'	2.788	(2nd row)				
AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
25			FI					
0.0132		0.0132		30.6	0.0106	1944.3242	6.7967	1:147130
0.0150		0.0150		30.6	0.0106	1944.3242	7.7399	1:129201
26			25					
0.0135		0.0135		133.6	0.0108	3972.9355	3.3859	1:295342
0.0153		0.0153		133.6	0.0108	3972.9355	3.8558	1:259352
26			27					
0.0150		0.0150		15.4	0.0120	3814.5637	3.9408	1:253758
0.0171		0.0171		15.4	0.0120	3814.5637	4.4876	1:222835
26			FI					
0.0149		0.0149		156.9	0.0119	4793.0320	3.1068	1:321870
0.0170		0.0170		156.9	0.0119	4793.0320	3.5380	1:282646
27			25					
0.0144		0.0144		76.3	0.0115	4012.3139	3.5920	1:278397
0.0164		0.0164		76.3	0.0115	4012.3139	4.0905	1:244472
FI			27					
0.0144		0.0144		104.1	0.0115	2996.2809	4.7901	1:208762
0.0163		0.0163		104.1	0.0115	2996.2809	5.4549	1:183322

□

All Station Pairs 2D Error Ellipses

		Confidence Level					
		0.950					
Expansion	1D	Chi Square	1.959				
Expansion	2D	Chi Square	2.448	(1st row)			
Expansion	2D	'F'	2.788	(2nd row)			

AT TO

Major	Minor	Azimuth	PRE_ANALISIS.txt Height	Chord	PPM	Ratio
25	26					
0.0135	0.0135	133.6	0.0108	3972.9355	3.3859	1:295342
0.0153	0.0153	133.6	0.0108	3972.9355	3.8558	1:259352
25	27					
0.0144	0.0144	76.3	0.0115	4012.3139	3.5920	1:278397
0.0164	0.0164	76.3	0.0115	4012.3139	4.0905	1:244472
25	FI					
0.0132	0.0132	30.6	0.0106	1944.3242	6.7967	1:147130
0.0150	0.0150	30.6	0.0106	1944.3242	7.7399	1:129201
26	27					
0.0150	0.0150	15.4	0.0120	3814.5637	3.9408	1:253758
0.0171	0.0171	15.4	0.0120	3814.5637	4.4876	1:222835
26	FI					
0.0149	0.0149	156.9	0.0119	4793.0320	3.1068	1:321870
0.0170	0.0170	156.9	0.0119	4793.0320	3.5380	1:282646
27	FI					
0.0144	0.0144	104.1	0.0115	2996.2809	4.7901	1:208762
0.0163	0.0163	104.1	0.0115	2996.2809	5.4549	1:183322

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
25	0.0179	0.0179	0.0179
Azimuth	90.3	171.7	1.4
Zenith	87.0	19.3	109.0
26	0.0174	0.0174	0.0174
Azimuth	101.7	1.1	22.0
Zenith	79.4	134.5	133.5
27	0.0219	0.0219	0.0219
Azimuth	12.8	109.4	20.2
Zenith	161.0	87.7	108.8
FI	0.0213	0.0213	0.0213
Azimuth	92.2	124.9	3.2
Zenith	80.5	11.3	96.0

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
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PRE_ANALISIS.txt

25	FI				
	0.0151	0.0151	0.0151	1944.3242	7.7614
Azimuth	143.0	33.2	120.6		1:128843
Zenith	21.0	97.4	70.4		
26	25				
	0.0154	0.0154	0.0154	3972.9355	3.8665
Azimuth	43.1	133.5	43.6		1:258634
Zenith	26.8	89.8	116.8		
26	27				
	0.0172	0.0172	0.0172	3814.5637	4.5001
Azimuth	176.1	20.8	105.4		1:222218
Zenith	29.3	117.0	79.5		
26	FI				
	0.0170	0.0170	0.0170	4793.0320	3.5478
Azimuth	85.2	158.2	66.9		1:281864
Zenith	16.1	85.2	105.3		
27	25				
	0.0165	0.0165	0.0165	4012.3139	4.1018
Azimuth	179.6	80.6	166.3		1:243795
Zenith	34.9	96.2	124.1		
FI	27				
	0.0164	0.0164	0.0164	2996.2809	5.4700
Azimuth	90.4	156.2	14.1		1:182814
Zenith	70.7	40.6	124.1		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
25	26					
	0.0154	0.0154	0.0154	3972.9355	3.8665	
Azimuth	43.1	133.5	43.6		1:258634	
Zenith	26.8	89.8	116.8			
25	27					
	0.0165	0.0165	0.0165	4012.3139	4.1018	
Azimuth	179.6	80.6	166.3		1:243795	
Zenith	34.9	96.2	124.1			
25	FI					
	0.0151	0.0151	0.0151	1944.3242	7.7614	
Azimuth	143.0	33.2	120.6		1:128843	
Zenith	21.0	97.4	70.4			
26	27					
	0.0172	0.0172	0.0172	3814.5637	4.5001	
Azimuth	176.1	20.8	105.4		1:222218	
Zenith	29.3	117.0	79.5			
26	FI					
	0.0170	0.0170	0.0170	4793.0320	3.5478	

			PRE_ANALISIS.txt		
Azimuth	85.2	158.2	66.9		1:281864
Zenith	16.1	85.2	105.3		
27		FI			
	0.0164	0.0164	0.0164	2996.2809	5.4700
Azimuth	90.4	156.2	14.1		1:182814
Zenith	70.7	40.6	124.1		

BLOQUE 11

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parms	12		
Direction Parms	0		
Scale Parms	0		
Rotation Parms N	0		
Rotation Parms E	0		
Rotation Parms Up	0		
TOTAL PARMS	12		
Degrees Of Freedom	12	Use Full Covariance	Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
11	S 34-50-14.30702	0.0063	W 56-10-32.25185	0.0063	-4.57664	0.0063
13	S 34-47-51.93837	0.0085	W 56-09-48.00329	0.0085	-4.49533	0.0085
20	S 34-48-43.41586	0.0084	W 56-07-12.95630	0.0084	-4.59811	0.0084
22	S 34-51-13.30692	0.0064	W 56-07-53.80014	0.0064	-4.68615	0.0064

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix
11	

PRE_ANALISIS.txt					
Latitude	S	34-50-14.30702	0.000039250		
Longitude	W	56-10-32.25185	-0.000000000	0.000039250	
Ellip Hgt		-4.57664	0.000000000	0.000000000	0.000039250
13					
Latitude	S	34-47-51.93837	0.000072854		
Longitude	W	56-09-48.00329	-0.000000000	0.000072854	
Ellip Hgt		-4.49533	0.000000000	0.000000000	0.000072854
20					
Latitude	S	34-48-43.41586	0.000071133		
Longitude	W	56-07-12.95630	-0.000000000	0.000071133	
Ellip Hgt		-4.59811	-0.000000000	0.000000000	0.000071133
22					
Latitude	S	34-51-13.30692	0.000041541		
Longitude	W	56-07-53.80014	-0.000000000	0.000041541	
Ellip Hgt		-4.68615	-0.000000000	-0.000000000	0.000041541

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
11	NA	0.01228
13	NA	0.01672
20	NA	0.01653
22	NA	0.01263

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
11	13	0.01360
11	20	0.01362
11	22	0.01152
13	20	0.01349
22	13	0.01407
22	20	0.01353

□

Distance Errors (connected stations)

PRE_ANALISIS.txt

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
11	13	4529.0423	0.0136	3.0031	1:332991
11	20	5787.3733	0.0136	2.3532	1:424945
11	22	4417.0684	0.0115	2.6087	1:383338
13	20	4248.2444	0.0135	3.1763	1:314833
22	13	6850.4341	0.0141	2.0533	1:487018
22	20	4734.1893	0.0135	2.8586	1:349826

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
11	13	4529.0423	0.0136	3.0031	1:332991
11	20	5787.3733	0.0136	2.3532	1:424945
11	22	4417.0684	0.0115	2.6087	1:383338
13	20	4248.2444	0.0135	3.1763	1:314833
13	22	6850.4341	0.0141	2.0533	1:487018
20	22	4734.1893	0.0135	2.8586	1:349826

□

Station Error Circles

Confidence Level 0.950
Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
11	0.0063	2.4477	0.0153
	0.0063	2.7876	0.0175
13	0.0085	2.4477	0.0209
	0.0085	2.7876	0.0238
20	0.0084	2.4477	0.0206
	0.0084	2.7876	0.0235
22	0.0064	2.4477	0.0158
	0.0064	2.7876	0.0180

□

Connected Station Error Circles

PRE_ANALISIS.txt

Confidence Level		0.950			
Expansion 2D		Chi Square Scaler (1st row)			
Expansion 2D		'F' Scaler (2nd row)			
AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
11	13				
0.0069	2.4477	0.0170	4529.0423	3.7516	1:266552
0.0069	2.7876	0.0194	4529.0423	4.2725	1:234056
11	20				
0.0070	2.4477	0.0170	5787.3733	2.9398	1:340158
0.0070	2.7876	0.0194	5787.3733	3.3480	1:298689
11	22				
0.0059	2.4477	0.0144	4417.0684	3.2589	1:306853
0.0059	2.7876	0.0164	4417.0684	3.7113	1:269444
13	20				
0.0069	2.4477	0.0169	4248.2444	3.9680	1:252017
0.0069	2.7876	0.0192	4248.2444	4.5189	1:221293
22	13				
0.0072	2.4477	0.0176	6850.4341	2.5651	1:389846
0.0072	2.7876	0.0200	6850.4341	2.9212	1:342320
22	20				
0.0069	2.4477	0.0169	4734.1893	3.5711	1:280028
0.0069	2.7876	0.0193	4734.1893	4.0669	1:245890

□

All Station Pairs Error Circles

Confidence Level		0.950			
Expansion 2D		Chi Square Scaler (1st row)			
Expansion 2D		'F' Scaler (2nd row)			
AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
11	13				
0.0069	2.4477	0.0170	4529.0423	3.7516	1:266552
0.0069	2.7876	0.0194	4529.0423	4.2725	1:234056
11	20				
0.0070	2.4477	0.0170	5787.3733	2.9398	1:340158
0.0070	2.7876	0.0194	5787.3733	3.3480	1:298689
11	22				
0.0059	2.4477	0.0144	4417.0684	3.2589	1:306853
0.0059	2.7876	0.0164	4417.0684	3.7113	1:269444
13	20				
0.0069	2.4477	0.0169	4248.2444	3.9680	1:252017
0.0069	2.7876	0.0192	4248.2444	4.5189	1:221293
13	22				
0.0072	2.4477	0.0176	6850.4341	2.5651	1:389846
0.0072	2.7876	0.0200	6850.4341	2.9212	1:342320

PRE_ANALISIS.txt

20	0.0069	22	2.4477	0.0169	4734.1893	3.5711	1:280028
	0.0069		2.7876	0.0193	4734.1893	4.0669	1:245890

□

Station 2D Error Ellipses

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
Expansion 2D	Chi Square	2.448	(1st row)		
Expansion 2D	'F'	2.788	(2nd row)		
AT	Major	Minor	Azimuth	Height	
11	0.0153	0.0153	178.0	0.0123	
11	0.0175	0.0175	178.0	0.0123	
13	0.0209	0.0209	173.8	0.0167	
13	0.0238	0.0238	173.8	0.0167	
20	0.0206	0.0206	172.4	0.0165	
20	0.0235	0.0235	172.4	0.0165	
22	0.0158	0.0158	96.4	0.0126	
22	0.0180	0.0180	96.4	0.0126	

□

Connected Station 2D Error Ellipses

Confidence Level	0.950							
Expansion 1D	Chi Square	1.959						
Expansion 2D	Chi Square	2.448	(1st row)					
Expansion 2D	'F'	2.788	(2nd row)					
AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
11			13					
0.0170	0.0170	0.0170	14.3	14.3	0.0136	4529.0423	3.7518	1:266537
0.0194	0.0194	0.0194	14.3	14.3	0.0136	4529.0423	4.2725	1:234057
11			20					
0.0170	0.0170	0.0170	60.9	60.9	0.0136	5787.3733	2.9400	1:340140
0.0194	0.0194	0.0194	60.9	60.9	0.0136	5787.3733	3.3480	1:298690
11			22					
0.0144	0.0144	0.0144	114.4	114.4	0.0115	4417.0684	3.2591	1:306836
0.0164	0.0164	0.0164	114.4	114.4	0.0115	4417.0684	3.7113	1:269445
13			20					
0.0169	0.0169	0.0169	112.0	112.0	0.0135	4248.2444	3.9682	1:252003
0.0192	0.0192	0.0192	112.0	112.0	0.0135	4248.2444	4.5189	1:221294
22			13					
0.0176	0.0176	0.0176	155.0	155.0	0.0141	6850.4341	2.5653	1:389825
0.0200	0.0200	0.0200	155.0	155.0	0.0141	6850.4341	2.9212	1:342321
22			20					
0.0169	0.0169	0.0169	12.6	12.6	0.0135	4734.1893	3.5713	1:280013
0.0193	0.0193	0.0193	12.6	12.6	0.0135	4734.1893	4.0669	1:245890

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
11			13					
0.0170	0.0170	0.0170		14.3	0.0136	4529.0423	3.7518	1:266537
0.0194	0.0194	0.0194		14.3	0.0136	4529.0423	4.2725	1:234057
11			20					
0.0170	0.0170	0.0170		60.9	0.0136	5787.3733	2.9400	1:340140
0.0194	0.0194	0.0194		60.9	0.0136	5787.3733	3.3480	1:298690
11			22					
0.0144	0.0144	0.0144		114.4	0.0115	4417.0684	3.2591	1:306836
0.0164	0.0164	0.0164		114.4	0.0115	4417.0684	3.7113	1:269445
13			20					
0.0169	0.0169	0.0169		112.0	0.0135	4248.2444	3.9682	1:252003
0.0192	0.0192	0.0192		112.0	0.0135	4248.2444	4.5189	1:221294
13			22					
0.0176	0.0176	0.0176		155.0	0.0141	6850.4341	2.5653	1:389825
0.0200	0.0200	0.0200		155.0	0.0141	6850.4341	2.9212	1:342321
20			22					
0.0169	0.0169	0.0169		12.6	0.0135	4734.1893	3.5713	1:280013
0.0193	0.0193	0.0193		12.6	0.0135	4734.1893	4.0669	1:245890

□

Station 3D Error Ellipsoids

Confidence Level 0.950
 Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
11	0.0175	0.0175	0.0175
Azimuth	178.3	134.9	87.8
Zenith	84.7	7.3	95.0
13	0.0239	0.0239	0.0239
Azimuth	67.7	173.8	83.8
Zenith	3.1	90.9	93.0
20	0.0236	0.0236	0.0236
Azimuth	166.5	173.0	82.7
Zenith	13.6	76.5	91.5
22	0.0180	0.0180	0.0180
Azimuth	84.9	96.4	6.4
Zenith	0.7	89.4	89.9

□

PRE_ANALISIS.txt

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
11		13				
	0.0194		0.0194	0.0194	4529.0423	4.2843
Azimuth	52.4		12.2	104.3		1:233409
Zenith	15.6		78.0	80.2		
11		20				
	0.0194		0.0194	0.0194	5787.3733	3.3572
Azimuth	148.5		60.3	150.9		1:297863
Zenith	31.3		88.9	121.3		
11		22				
	0.0164		0.0164	0.0164	4417.0684	3.7216
Azimuth	166.8		101.9	24.4		1:268699
Zenith	38.7		71.2	122.4		
13		20				
	0.0193		0.0193	0.0193	4248.2444	4.5314
Azimuth	62.7		126.2	22.0		1:220681
Zenith	40.3		110.8	122.8		
22		13				
	0.0201		0.0201	0.0201	6850.4341	2.9293
Azimuth	78.7		156.1	65.0		1:341373
Zenith	16.8		86.2	106.4		
22		20				
	0.0193		0.0193	0.0193	4734.1893	4.0781
Azimuth	37.9		9.9	102.6		1:245209
Zenith	19.6		72.6	81.4		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
11		13				
	0.0194		0.0194	0.0194	4529.0423	4.2843
Azimuth	52.4		12.2	104.3		1:233409
Zenith	15.6		78.0	80.2		
11		20				
	0.0194		0.0194	0.0194	5787.3733	3.3572
Azimuth	148.5		60.3	150.9		1:297863
Zenith	31.3		88.9	121.3		
11		22				
	0.0164		0.0164	0.0164	4417.0684	3.7216

			PRE_ANALISIS.txt		
Azimuth	166.8	101.9	24.4		1:268699
Zenith	38.7	71.2	122.4		
13	20				
	0.0193	0.0193	0.0193	4248.2444	4.5314
Azimuth	62.7	126.2	22.0		1:220681
Zenith	40.3	110.8	122.8		
13	22				
	0.0201	0.0201	0.0201	6850.4341	2.9293
Azimuth	78.7	156.1	65.0		1:341373
Zenith	16.8	86.2	106.4		
20	22				
	0.0193	0.0193	0.0193	4734.1893	4.0781
Azimuth	37.9	9.9	102.6		1:245209
Zenith	19.6	72.6	81.4		

BLOQUE 12

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parm	12		
Direction Parm	0		
Scale Parm	0		
Rotation Parm N	0		
Rotation Parm E	0		
Rotation Parm Up	0		
TOTAL PARMS	12		
Degrees Of Freedom	12	Use Full Covariance	Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
13						
S	34-47-51.93837	0.0067	W 56-09-48.00329	0.0067	-4.49533	0.0067
15						
S	34-46-04.40883	0.0083	W 56-09-57.44554	0.0083	-4.41547	0.0083
18						
S	34-46-11.03814	0.0085	W 56-07-23.92290	0.0085	-4.48603	0.0085
20						
S	34-48-43.41586	0.0066	W 56-07-12.95630	0.0066	-4.59811	0.0066

PRE_ANALISIS.txt

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station			Covariance Matrix		
13					
Latitude	S	34-47-51.93837	0.000044573		
Longitude	W	56-09-48.00329	-0.000000000	0.000044573	
Ellip Hgt		-4.49533	0.000000000	0.000000000	0.000044573
15					
Latitude	S	34-46-04.40883	0.000068219		
Longitude	W	56-09-57.44554	-0.000000000	0.000068219	
Ellip Hgt		-4.41547	0.000000000	0.000000000	0.000068219
18					
Latitude	S	34-46-11.03814	0.000071614		
Longitude	W	56-07-23.92290	-0.000000000	0.000071614	
Ellip Hgt		-4.48603	0.000000000	0.000000000	0.000071614
20					
Latitude	S	34-48-43.41586	0.000044172		
Longitude	W	56-07-12.95630	-0.000000000	0.000044172	
Ellip Hgt		-4.59811	0.000000000	0.000000000	0.000044172

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level	Expansion 1D	Chi Square	1D	Height Confidence Interval
0.950		1.959		
AT			TO	
13			NA	0.01308
15			NA	0.01618
18			NA	0.01658
20			NA	0.01302

□

Connected Station Height Confidence Intervals

Confidence Level	Expansion 1D	Chi Square	1D	Height Confidence Interval
0.950		1.959		
AT			TO	
13			15	0.01186
13			18	0.01277
13			20	0.01134

```

15          18          PRE_ANALISIS.txt
0.01288
20          15          0.01307
20          18          0.01321

```

□

Distance Errors (connected stations)

```

Confidence Level 0.950
Expansion 1D      Chi Square 1.959

```

AT	TO	Distance	Stan Dev	PPM	Ratio
13	15	3322.2829	0.0119	3.5702	1:280096
13	18	4804.8389	0.0128	2.6582	1:376200
13	20	4248.2444	0.0113	2.6703	1:374495
15	18	3909.2566	0.0129	3.2950	1:303488
20	15	6441.7347	0.0131	2.0284	1:492992
20	18	4703.9013	0.0132	2.8090	1:355996

□

Distance Errors (all station pairs)

```

Confidence Level 0.950
Expansion 1D      Chi Square 1.959

```

AT	TO	Distance	Stan Dev	PPM	Ratio
13	15	3322.2829	0.0119	3.5702	1:280096
13	18	4804.8389	0.0128	2.6582	1:376200
13	20	4248.2444	0.0113	2.6703	1:374495
15	18	3909.2566	0.0129	3.2950	1:303488
15	20	6441.7347	0.0131	2.0284	1:492992
18	20	4703.9013	0.0132	2.8090	1:355996

□

Station Error Circles

```

Confidence Level 0.950
Expansion 2D      Chi Square Scaler (1st row)
Expansion 2D      'F' Scaler (2nd row)

```

AT	Radius (39.35)	Scaler	Radius (95.00)
13	0.0067	2.4477	0.0163
	0.0067	2.7876	0.0186
15	0.0083	2.4477	0.0202
	0.0083	2.7876	0.0230

PRE_ANALISIS.txt

18	0.0085	2.4477	0.0207
	0.0085	2.7876	0.0236
20	0.0066	2.4477	0.0163
	0.0066	2.7876	0.0185

□

Connected Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
13	15				
0.0061	2.4477	0.0148	3322.2829	4.4601	1:224210
0.0061	2.7876	0.0169	3322.2829	5.0793	1:196877
13	18				
0.0065	2.4477	0.0160	4804.8389	3.3207	1:301140
0.0065	2.7876	0.0182	4804.8389	3.7818	1:264427
13	20				
0.0058	2.4477	0.0142	4248.2444	3.3358	1:299774
0.0058	2.7876	0.0161	4248.2444	3.7990	1:263229
15	18				
0.0066	2.4477	0.0161	3909.2566	4.1163	1:242935
0.0066	2.7876	0.0183	3909.2566	4.6878	1:213319
20	15				
0.0067	2.4477	0.0163	6441.7347	2.5340	1:394628
0.0067	2.7876	0.0186	6441.7347	2.8858	1:346519
20	18				
0.0067	2.4477	0.0165	4703.9013	3.5092	1:284966
0.0067	2.7876	0.0188	4703.9013	3.9964	1:250226

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
13	15				
0.0061	2.4477	0.0148	3322.2829	4.4601	1:224210
0.0061	2.7876	0.0169	3322.2829	5.0793	1:196877
13	18				
0.0065	2.4477	0.0160	4804.8389	3.3207	1:301140
0.0065	2.7876	0.0182	4804.8389	3.7818	1:264427
13	20				
0.0058	2.4477	0.0142	4248.2444	3.3358	1:299774

PRE_ANALISIS.txt

	0.0058	2.7876	0.0161	4248.2444	3.7990	1:263229
15		18				
	0.0066	2.4477	0.0161	3909.2566	4.1163	1:242935
	0.0066	2.7876	0.0183	3909.2566	4.6878	1:213319
15		20				
	0.0067	2.4477	0.0163	6441.7347	2.5340	1:394628
	0.0067	2.7876	0.0186	6441.7347	2.8858	1:346519
18		20				
	0.0067	2.4477	0.0165	4703.9013	3.5092	1:284966
	0.0067	2.7876	0.0188	4703.9013	3.9964	1:250226

□

Station 2D Error Ellipses

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
Expansion 2D	Chi Square	2.448	(1st row)		
Expansion 2D	'F'	2.788	(2nd row)		
AT	Major	Minor	Azimuth	Height	
13	0.0163	0.0163	135.0	0.0131	
13	0.0186	0.0186	135.0	0.0131	
15	0.0202	0.0202	135.0	0.0162	
15	0.0230	0.0230	135.0	0.0162	
18	0.0207	0.0207	164.0	0.0166	
18	0.0236	0.0236	164.0	0.0166	
20	0.0163	0.0163	174.8	0.0130	
20	0.0185	0.0185	174.8	0.0130	

□

Connected Station 2D Error Ellipses

Confidence Level	0.950						
Expansion 1D	Chi Square	1.959					
Expansion 2D	Chi Square	2.448	(1st row)				
Expansion 2D	'F'	2.788	(2nd row)				
AT	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
13		15					
0.0148	0.0148	0.0148	175.9	0.0119	3322.2829	4.4603	1:224198
0.0169	0.0169	0.0169	175.9	0.0119	3322.2829	5.0793	1:196877
13		18					
0.0160	0.0160	0.0160	49.5	0.0128	4804.8389	3.3209	1:301123
0.0182	0.0182	0.0182	49.5	0.0128	4804.8389	3.7817	1:264428
13		20					
0.0142	0.0142	0.0142	112.0	0.0113	4248.2444	3.3360	1:299758
0.0161	0.0161	0.0161	112.0	0.0113	4248.2444	3.7990	1:263229
15		18					
0.0161	0.0161	0.0161	93.0	0.0129	3909.2566	4.1166	1:242922

PRE_ANALISISIS.txt						
0.0183	0.0183	93.0	0.0129	3909.2566	4.6878	1:213319
20	15					
0.0163	0.0163	139.6	0.0131	6441.7347	2.5342	1:394607
0.0186	0.0186	139.6	0.0131	6441.7347	2.8858	1:346520
20	18					
0.0165	0.0165	176.6	0.0132	4703.9013	3.5094	1:284951
0.0188	0.0188	176.6	0.0132	4703.9013	3.9964	1:250226

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
Expansion 1D Chi Square 1.959
Expansion 2D Chi Square 2.448 (1st row)
Expansion 2D 'F' 2.788 (2nd row)

AT	TO	Major	Minor	Azimuth	Height	Chord	PPM	Ratio
13	15							
0.0148	0.0148	175.9	0.0119	3322.2829	4.4603	1:224198		
0.0169	0.0169	175.9	0.0119	3322.2829	5.0793	1:196877		
13	18							
0.0160	0.0160	49.5	0.0128	4804.8389	3.3209	1:301123		
0.0182	0.0182	49.5	0.0128	4804.8389	3.7817	1:264428		
13	20							
0.0142	0.0142	112.0	0.0113	4248.2444	3.3360	1:299758		
0.0161	0.0161	112.0	0.0113	4248.2444	3.7990	1:263229		
15	18							
0.0161	0.0161	93.0	0.0129	3909.2566	4.1166	1:242922		
0.0183	0.0183	93.0	0.0129	3909.2566	4.6878	1:213319		
15	20							
0.0163	0.0163	139.6	0.0131	6441.7347	2.5342	1:394607		
0.0186	0.0186	139.6	0.0131	6441.7347	2.8858	1:346520		
18	20							
0.0165	0.0165	176.6	0.0132	4703.9013	3.5094	1:284951		
0.0188	0.0188	176.6	0.0132	4703.9013	3.9964	1:250226		

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
13	0.0187	0.0187	0.0187
Azimuth	75.9	135.0	44.1
Zenith	10.7	84.4	80.9
15	0.0231	0.0231	0.0231
Azimuth	10.4	105.9	29.2
Zenith	57.6	81.3	33.8

PRE_ANALISIS.txt

18	0.0237	0.0237	0.0237
Azimuth	74.0	164.2	74.2
Zenith	164.2	90.1	105.8
20	0.0186	0.0186	0.0186
Azimuth	64.3	174.4	84.7
Zenith	6.9	92.4	96.5

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
13	0.0169	15	0.0169	0.0169	3322.2829	5.0934
Azimuth	175.5		14.5	85.9		1:196332
Zenith	98.4		8.9	92.9		
13	0.0182	18	0.0182	0.0182	4804.8389	3.7922
Azimuth	24.5		74.6	139.5		1:263696
Zenith	51.3		128.7	117.9		
13	0.0162	20	0.0162	0.0162	4248.2444	3.8095
Azimuth	72.7		131.7	22.0		1:262501
Zenith	45.5		117.6	122.8		
15	0.0184	18	0.0184	0.0184	3909.2566	4.7008
Azimuth	97.1		15.5	3.0		1:212729
Zenith	95.9		35.4	124.7		
20	0.0186	15	0.0186	0.0186	6441.7347	2.8938
Azimuth	103.7		152.7	49.6		1:345561
Zenith	37.5		63.3	114.2		
20	0.0189	18	0.0189	0.0189	4703.9013	4.0075
Azimuth	157.6		176.9	86.6		1:249534
Zenith	7.2		83.2	92.3		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
13	0.0169	15	0.0169	0.0169	3322.2829	5.0934

PRE_ANALISIS.txt					
Azimuth	175.5	14.5	85.9		1:196332
Zenith	98.4	8.9	92.9		
13	18				
	0.0182	0.0182	0.0182	4804.8389	3.7922
Azimuth	24.5	74.6	139.5		1:263696
Zenith	51.3	128.7	117.9		
13	20				
	0.0162	0.0162	0.0162	4248.2444	3.8095
Azimuth	72.7	131.7	22.0		1:262501
Zenith	45.5	117.6	122.8		
15	18				
	0.0184	0.0184	0.0184	3909.2566	4.7008
Azimuth	97.1	15.5	3.0		1:212729
Zenith	95.9	35.4	124.7		
15	20				
	0.0186	0.0186	0.0186	6441.7347	2.8938
Azimuth	103.7	152.7	49.6		1:345561
Zenith	37.5	63.3	114.2		
18	20				
	0.0189	0.0189	0.0189	4703.9013	4.0075
Azimuth	157.6	176.9	86.6		1:249534
Zenith	7.2	83.2	92.3		

BLOQUE 13

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord Parms	12		
Direction Parms	0		
Scale Parms	0		
Rotation Parms N	0		
Rotation Parms E	0		
Rotation Parms Up	0		
TOTAL PARMS	12		
Degrees Of Freedom	12	Use Full Covariance	Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
15						

```

S 34-46-04.40883 0.0066 W PRE_ANALISIS.txt 56-09-57.44554 0.0066 -4.41547 0.0066
16
S 34-44-02.34136 0.0087 W 56-11-34.87567 0.0087 -4.28751 0.0087
17
S 34-44-14.83578 0.0082 W 56-08-44.05233 0.0082 -4.36970 0.0082
18
S 34-46-11.03814 0.0066 W 56-07-23.92290 0.0066 -4.48603 0.0066

```

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station			Covariance Matrix			
15						
Latitude	S	34-46-04.40883	0.000043012			
Longitude	W	56-09-57.44554	-0.000000000	0.000043012		
Ellip Hgt		-4.41547	0.000000000	-0.000000000	0.000043012	
16						
Latitude	S	34-44-02.34136	0.000076528			
Longitude	W	56-11-34.87567	-0.000000000	0.000076528		
Ellip Hgt		-4.28751	0.000000000	-0.000000000	0.000076528	
17						
Latitude	S	34-44-14.83578	0.000066548			
Longitude	W	56-08-44.05233	-0.000000000	0.000066548		
Ellip Hgt		-4.36970	0.000000000	-0.000000000	0.000066548	
18						
Latitude	S	34-46-11.03814	0.000043836			
Longitude	W	56-07-23.92290	-0.000000000	0.000043836		
Ellip Hgt		-4.48603	0.000000000	-0.000000000	0.000043836	

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
15	NA	0.01285
16	NA	0.01714
17	NA	0.01598
18	NA	0.01297

□

Connected Station Height Confidence Intervals

Confidence Level 0.950

PRE_ANALISIS.txt

Expansion ID	Chi Square	1.959
AT	TO	Height Confidence Interval
15	16	0.01347
15	17	0.01226
15	18	0.01141
17	16	0.01322
18	16	0.01426
18	17	0.01256

□

Distance Errors (connected stations)

Expansion ID	Chi Square	1.959
AT	TO	Confidence Level 0.950
15	16	Distance
15	17	Stan Dev
15	18	PPM
17	16	Ratio
18	16	4504.4770
18	17	3858.1840
		0.0135
		2.9906
		3.1777
		0.0123
		3.1777
		0.0114
		2.9193
		3.0300
		3.0300
		0.0132
		3.0300
		0.0143
		1.8983
		0.0126
		3.0475
		3.0475
		1:334385
		1:314689
		1:342545
		1:330037
		1:526782
		1:328141

□

Distance Errors (all station pairs)

Expansion ID	Chi Square	1.959
AT	TO	Confidence Level 0.950
15	16	Distance
15	17	Stan Dev
15	18	PPM
16	17	Ratio
16	18	4504.4770
17	18	3858.1840
		0.0135
		2.9906
		3.1777
		0.0123
		3.1777
		0.0114
		2.9193
		3.0300
		3.0300
		0.0132
		3.0300
		0.0143
		1.8983
		0.0126
		3.0475
		3.0475
		1:334385
		1:314689
		1:342545
		1:330037
		1:526782
		1:328141

□

Station Error Circles

Confidence Level 0.950

PRE_ANALISIS.txt

Expansion 2D	Chi Square Scaler (1st row)	Scaler	Radius (95.00)
Expansion 2D	'F' Scaler (2nd row)		
AT	Radius (39.35)	Scaler	Radius (95.00)
15	0.0066	2.4477	0.0161
	0.0066	2.7876	0.0183
16	0.0087	2.4477	0.0214
	0.0087	2.7876	0.0244
17	0.0082	2.4477	0.0200
	0.0082	2.7876	0.0227
18	0.0066	2.4477	0.0162
	0.0066	2.7876	0.0185

□

Connected Station Error Circles

Confidence Level 0.950

Expansion 2D	Chi Square Scaler (1st row)	Scaler	Radius (95.00)	Chord	PPM	Ratio
Expansion 2D	'F' Scaler (2nd row)					
AT	Radius (39.35)	TO	Radius (95.00)	Chord	PPM	Ratio
		Scaler				
15	0.0069	16	0.0168	4504.4770	3.7360	1:267667
	0.0069	2.4477	0.0192	4504.4770	4.2547	1:235036
		2.7876				
15	0.0063	17	0.0153	3858.1840	3.9698	1:251901
	0.0063	2.4477	0.0174	3858.1840	4.5210	1:221192
		2.7876				
15	0.0058	18	0.0143	3909.2566	3.6470	1:274199
	0.0058	2.4477	0.0162	3909.2566	4.1533	1:240771
		2.7876				
17	0.0067	16	0.0165	4362.6099	3.7852	1:264187
	0.0067	2.4477	0.0188	4362.6099	4.3107	1:231980
		2.7876				
18	0.0073	16	0.0178	7514.5002	2.3715	1:421677
	0.0073	2.4477	0.0203	7514.5002	2.7007	1:370270
		2.7876				
18	0.0064	17	0.0157	4120.1666	3.8071	1:262669
	0.0064	2.4477	0.0179	4120.1666	4.3356	1:230647
		2.7876				

□

All Station Pairs Error Circles

Confidence Level 0.950

Expansion 2D	Chi Square Scaler (1st row)	Scaler	Radius (95.00)	Chord	PPM	Ratio
Expansion 2D	'F' Scaler (2nd row)					
AT	Radius (39.35)	TO	Radius (95.00)	Chord	PPM	Ratio
		Scaler				

PRE_ANALISIS.txt

15	0.0069	16	2.4477	0.0168	4504.4770	3.7360	1:267667
	0.0069		2.7876	0.0192	4504.4770	4.2547	1:235036
15	0.0063	17	2.4477	0.0153	3858.1840	3.9698	1:251901
	0.0063		2.7876	0.0174	3858.1840	4.5210	1:221192
15	0.0058	18	2.4477	0.0143	3909.2566	3.6470	1:274199
	0.0058		2.7876	0.0162	3909.2566	4.1533	1:240771
16	0.0067	17	2.4477	0.0165	4362.6099	3.7852	1:264187
	0.0067		2.7876	0.0188	4362.6099	4.3107	1:231980
16	0.0073	18	2.4477	0.0178	7514.5002	2.3715	1:421677
	0.0073		2.7876	0.0203	7514.5002	2.7007	1:370270
17	0.0064	18	2.4477	0.0157	4120.1666	3.8071	1:262669
	0.0064		2.7876	0.0179	4120.1666	4.3356	1:230647

□

Station 2D Error Ellipses

Confidence Level	0.950				
Expansion 1D	Chi Square	1.959			
Expansion 2D	Chi Square	2.448	(1st row)		
Expansion 2D	'F'	2.788	(2nd row)		
AT	Major	Minor	Azimuth	Height	
15	0.0161	0.0161	172.6	0.0129	
15	0.0183	0.0183	172.6	0.0129	
16	0.0214	0.0214	98.0	0.0171	
16	0.0244	0.0244	98.0	0.0171	
17	0.0200	0.0200	177.5	0.0160	
17	0.0227	0.0227	177.5	0.0160	
18	0.0162	0.0162	135.0	0.0130	
18	0.0185	0.0185	135.0	0.0130	

□

Connected Station 2D Error Ellipses

Confidence Level	0.950							
Expansion 1D	Chi Square	1.959						
Expansion 2D	Chi Square	2.448	(1st row)					
Expansion 2D	'F'	2.788	(2nd row)					
AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
15	0.0168	0.0168	16	146.7	0.0135	4504.4770	3.7362	1:267653
	0.0192	0.0192		146.7	0.0135	4504.4770	4.2547	1:235036

PRE_ANALISIS.txt

15	0.0153	17	28.8	0.0123	3858.1840	3.9700	1:251888
	0.0174		28.8	0.0123	3858.1840	4.5210	1:221192
15	0.0143	18	93.0	0.0114	3909.2566	3.6472	1:274184
	0.0162		93.0	0.0114	3909.2566	4.1533	1:240772
17	0.0165	16	95.1	0.0132	4362.6099	3.7854	1:264173
	0.0188		95.1	0.0132	4362.6099	4.3107	1:231980
18	0.0178	16	122.0	0.0143	7514.5002	2.3716	1:421654
	0.0203		122.0	0.0143	7514.5002	2.7007	1:370271
18	0.0157	17	150.5	0.0126	4120.1666	3.8073	1:262655
	0.0179		150.5	0.0126	4120.1666	4.3356	1:230648

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
15	0.0168	0.0168	16	146.7	0.0135	4504.4770	3.7362	1:267653
	0.0192	0.0192		146.7	0.0135	4504.4770	4.2547	1:235036
15	0.0153	0.0153	17	28.8	0.0123	3858.1840	3.9700	1:251888
	0.0174	0.0174		28.8	0.0123	3858.1840	4.5210	1:221192
15	0.0143	0.0143	18	93.0	0.0114	3909.2566	3.6472	1:274184
	0.0162	0.0162		93.0	0.0114	3909.2566	4.1533	1:240772
16	0.0165	0.0165	17	95.1	0.0132	4362.6099	3.7854	1:264173
	0.0188	0.0188		95.1	0.0132	4362.6099	4.3107	1:231980
16	0.0178	0.0178	18	122.0	0.0143	7514.5002	2.3716	1:421654
	0.0203	0.0203		122.0	0.0143	7514.5002	2.7007	1:370271
17	0.0157	0.0157	18	150.5	0.0126	4120.1666	3.8073	1:262655
	0.0179	0.0179		150.5	0.0126	4120.1666	4.3356	1:230648

□

Station 3D Error Ellipsoids

Confidence Level 0.950
 Expansion 3D Chi Square 2.795

PRE_ANALISIS.txt

AT	Major	Medium	Minor
15	0.0183	0.0183	0.0183
Azimuth	159.0	5.6	82.7
Zenith	134.2	132.6	76.3
16	0.0245	0.0245	0.0245
Azimuth	96.1	31.6	166.1
Zenith	114.6	133.3	126.7
17	0.0228	0.0228	0.0228
Azimuth	172.6	81.3	146.3
Zenith	77.6	95.9	13.8
18	0.0185	0.0185	0.0185
Azimuth	139.3	49.3	139.3
Zenith	45.0	90.0	135.0

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
15		16				
Azimuth	0.0192	145.0	0.0192	0.0192	4504.4770	4.2665
Zenith	94.5	21.4	43.4	56.7		1:234386
15		17				
Azimuth	0.0175	28.2	0.0175	0.0175	3858.1840	4.5335
Zenith	88.1	18.6	112.7	118.8		1:220580
15		18				
Azimuth	0.0163	159.7	0.0163	0.0163	3909.2566	4.1648
Zenith	37.0	78.7	85.1	3.0		1:240105
17		16				
Azimuth	0.0189	108.9	0.0189	0.0189	4362.6099	4.3227
Zenith	109.1	41.0	42.4	5.1		1:231338
18		16				
Azimuth	0.0204	148.9	0.0204	0.0204	7514.5002	2.7082
Zenith	127.5	52.5	95.1	32.0		1:369246
18		17				
Azimuth	0.0179	177.5	0.0179	0.0179	4120.1666	4.3477
Zenith	37.0	120.5	138.9	60.5		1:230009

□

All Station Pairs 3D Error Ellipsoids

PRE_ANALISIS.txt

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
15	0.0192	16	0.0192	0.0192	4504.4770	4.2665
Azimuth	145.0		43.4	56.7		1:234386
Zenith	94.5		21.4	110.8		
15	0.0175	17	0.0175	0.0175	3858.1840	4.5335
Azimuth	28.2		112.7	118.8		1:220580
Zenith	88.1		18.6	71.5		
15	0.0163	18	0.0163	0.0163	3909.2566	4.1648
Azimuth	159.7		85.1	3.0		1:240105
Zenith	37.0		78.7	124.7		
16	0.0189	17	0.0189	0.0189	4362.6099	4.3227
Azimuth	108.9		42.4	5.1		1:231338
Zenith	109.1		41.0	124.6		
16	0.0204	18	0.0204	0.0204	7514.5002	2.7082
Azimuth	148.9		95.1	32.0		1:369246
Zenith	127.5		52.5	120.5		
17	0.0179	18	0.0179	0.0179	4120.1666	4.3477
Azimuth	177.5		138.9	60.5		1:230009
Zenith	37.0		120.5	108.9		

BLOQUE 14

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		
Fixed In 3D	0		
Float Coord ParmS	12		
Direction ParmS	0		
Scale ParmS	0		
Rotation ParmS N	0		
Rotation ParmS E	0		
Rotation ParmS Up	0		
TOTAL PARMs	12		

Degrees Of Freedom 12 PRE_ANALISIS.txt
 Use Full Covariance Yes

□

Analyzed Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
18	S 34-46-11.03814	0.0067	W 56-07-23.92290	0.0067	-4.48603	0.0067
19	S 34-47-26.23817	0.0086	W 56-04-09.08762	0.0086	-4.62255	0.0086
20	S 34-48-43.41586	0.0067	W 56-07-12.95630	0.0067	-4.59811	0.0067
21	S 34-50-17.22546	0.0091	W 56-04-44.51085	0.0091	-4.72778	0.0091

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix					
18	Latitude S	34-46-11.03814	0.000045554			
	Longitude W	56-07-23.92290	-0.000000000	0.000045554		
	Ellip Hgt	-4.48603	0.000000000	0.000000000	0.000045554	
19	Latitude S	34-47-26.23817	0.000074174			
	Longitude W	56-04-09.08762	-0.000000000	0.000074174		
	Ellip Hgt	-4.62255	0.000000000	0.000000000	0.000074174	
20	Latitude S	34-48-43.41586	0.000045422			
	Longitude W	56-07-12.95630	-0.000000000	0.000045422		
	Ellip Hgt	-4.59811	0.000000000	0.000000000	0.000045422	
21	Latitude S	34-50-17.22546	0.000082105			
	Longitude W	56-04-44.51085	-0.000000000	0.000082105		
	Ellip Hgt	-4.72778	0.000000000	-0.000000000	0.000082105	

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
 Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
18	NA	0.01322
19	NA	0.01687

PRE_ANALISIS.txt

20	NA	0.01321
21	NA	0.01775

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Height Confidence Interval
18	19	0.01382
19	21	0.01439
20	18	0.01227
20	19	0.01341
20	21	0.01411
21	18	0.01526

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
18	19	5468.9961	0.0138	2.5274	1:395668
19	21	5345.4779	0.0144	2.6928	1:371358
20	18	4703.9013	0.0123	2.6082	1:383406
20	19	5244.0615	0.0134	2.5567	1:391126
20	21	4752.5480	0.0141	2.9680	1:336932
21	18	8600.7411	0.0153	1.7741	1:563661

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion 1D Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
18	19	5468.9961	0.0138	2.5274	1:395668
18	20	4703.9013	0.0123	2.6082	1:383406
18	21	8600.7411	0.0153	1.7741	1:563661
19	20	5244.0615	0.0134	2.5567	1:391126

PRE_ANALISIS.txt

19	21	5345.4779	0.0144	2.6928	1:371358
20	21	4752.5480	0.0141	2.9680	1:336932

□

Station Error Circles

Confidence Level 0.950

Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
18	0.0067 0.0067	2.4477 2.7876	0.0165 0.0188
19	0.0086 0.0086	2.4477 2.7876	0.0211 0.0240
20	0.0067 0.0067	2.4477 2.7876	0.0165 0.0188
21	0.0091 0.0091	2.4477 2.7876	0.0222 0.0253

□

Connected Station Error Circles

Confidence Level 0.950

Expansion 2D Chi Square Scaler (1st row)
Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	TO	Scaler	Radius (95.00)	Chord	PPM	Ratio
18	0.0071 0.0071	19	2.4477 2.7876	0.0173 0.0197	5468.9961 5468.9961	3.1573 3.5957	1:316723 1:278111
19	0.0073 0.0073	21	2.4477 2.7876	0.0180 0.0205	5345.4779 5345.4779	3.3640 3.8311	1:297263 1:261024
20	0.0063 0.0063	18	2.4477 2.7876	0.0153 0.0175	4703.9013 4703.9013	3.2583 3.7107	1:306907 1:269492
20	0.0068 0.0068	19	2.4477 2.7876	0.0167 0.0191	5244.0615 5244.0615	3.1940 3.6374	1:313087 1:274919
20	0.0072 0.0072	21	2.4477 2.7876	0.0176 0.0201	4752.5480 4752.5480	3.7077 4.2225	1:269706 1:236826
21	0.0078 0.0078	18	2.4477 2.7876	0.0191 0.0217	8600.7411 8600.7411	2.2163 2.5240	1:451197 1:396192

□

PRE_ANALISIS.txt

All Station Pairs Error Circles

Confidence Level		0.950			
Expansion 2D		Chi Square Scaler (1st row)			
Expansion 2D		'F' Scaler (2nd row)			
AT	TO	Radius (95.00)	Chord	PPM	Ratio
Radius (39.35)	Scaler				
18	19				
0.0071	2.4477	0.0173	5468.9961	3.1573	1:316723
0.0071	2.7876	0.0197	5468.9961	3.5957	1:278111
18	20				
0.0063	2.4477	0.0153	4703.9013	3.2583	1:306907
0.0063	2.7876	0.0175	4703.9013	3.7107	1:269492
18	21				
0.0078	2.4477	0.0191	8600.7411	2.2163	1:451197
0.0078	2.7876	0.0217	8600.7411	2.5240	1:396192
19	20				
0.0068	2.4477	0.0167	5244.0615	3.1940	1:313087
0.0068	2.7876	0.0191	5244.0615	3.6374	1:274919
19	21				
0.0073	2.4477	0.0180	5345.4779	3.3640	1:297263
0.0073	2.7876	0.0205	5345.4779	3.8311	1:261024
20	21				
0.0072	2.4477	0.0176	4752.5480	3.7077	1:269706
0.0072	2.7876	0.0201	4752.5480	4.2225	1:236826

□

Station 2D Error Ellipses

Confidence Level		0.950			
Expansion 1D		Chi Square 1.959			
Expansion 2D		Chi Square 2.448 (1st row)			
Expansion 2D		'F' 2.788 (2nd row)			
AT	Major	Minor	Azimuth	Height	
18	0.0165	0.0165	175.3	0.0132	
18	0.0188	0.0188	175.3	0.0132	
19	0.0211	0.0211	176.0	0.0169	
19	0.0240	0.0240	176.0	0.0169	
20	0.0165	0.0165	177.2	0.0132	
20	0.0188	0.0188	177.2	0.0132	
21	0.0222	0.0222	167.0	0.0178	
21	0.0253	0.0253	167.0	0.0178	

□

Connected Station 2D Error Ellipses

Confidence Level		0.950	
Expansion 1D		Chi Square 1.959	

PRE_ANALISISIS.txt							
Expansion	2D	Chi	Square	2.448	(1st row)		
Expansion	2D	'F'		2.788	(2nd row)		
AT		TO					
Major	Minor		Azimuth	Height	Chord	PPM	Ratio
18		19					
0.0173	0.0173		115.2	0.0138	5468.9961	3.1575	1:316706
0.0197	0.0197		115.2	0.0138	5468.9961	3.5957	1:278112
19		21					
0.0180	0.0180		9.7	0.0144	5345.4779	3.3642	1:297247
0.0205	0.0205		9.7	0.0144	5345.4779	3.8311	1:261024
20		18					
0.0153	0.0153		176.6	0.0123	4703.9013	3.2585	1:306891
0.0175	0.0175		176.6	0.0123	4703.9013	3.7107	1:269493
20		19					
0.0168	0.0168		62.9	0.0134	5244.0615	3.1942	1:313070
0.0191	0.0191		62.9	0.0134	5244.0615	3.6374	1:274919
20		21					
0.0176	0.0176		127.6	0.0141	4752.5480	3.7079	1:269692
0.0201	0.0201		127.6	0.0141	4752.5480	4.2225	1:236827
21		18					
0.0191	0.0191		152.0	0.0153	8600.7411	2.2164	1:451173
0.0217	0.0217		152.0	0.0153	8600.7411	2.5240	1:396192

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950							
Expansion	1D	Chi	Square	1.959			
Expansion	2D	Chi	Square	2.448	(1st row)		
Expansion	2D	'F'		2.788	(2nd row)		
AT		TO					
Major	Minor		Azimuth	Height	Chord	PPM	Ratio
18		19					
0.0173	0.0173		115.2	0.0138	5468.9961	3.1575	1:316706
0.0197	0.0197		115.2	0.0138	5468.9961	3.5957	1:278112
18		20					
0.0153	0.0153		176.6	0.0123	4703.9013	3.2585	1:306891
0.0175	0.0175		176.6	0.0123	4703.9013	3.7107	1:269493
18		21					
0.0191	0.0191		152.0	0.0153	8600.7411	2.2164	1:451173
0.0217	0.0217		152.0	0.0153	8600.7411	2.5240	1:396192
19		20					
0.0168	0.0168		62.9	0.0134	5244.0615	3.1942	1:313070
0.0191	0.0191		62.9	0.0134	5244.0615	3.6374	1:274919
19		21					
0.0180	0.0180		9.7	0.0144	5345.4779	3.3642	1:297247
0.0205	0.0205		9.7	0.0144	5345.4779	3.8311	1:261024
20		21					

0.0176	0.0176	127.6	PRE_ANALISIS.txt	0.0141	4752.5480	3.7079	1:269692
0.0201	0.0201	127.6		0.0141	4752.5480	4.2225	1:236827

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
18	0.0189	0.0189	0.0189
Azimuth	175.7	87.1	51.8
Zenith	82.5	79.2	13.2
19	0.0241	0.0241	0.0241
Azimuth	176.1	86.2	8.3
Zenith	84.0	88.7	6.1
20	0.0188	0.0188	0.0188
Azimuth	177.6	88.8	56.2
Zenith	83.7	79.9	11.9
21	0.0253	0.0253	0.0253
Azimuth	166.5	76.2	102.3
Zenith	87.3	95.5	6.1

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
18		19	0.0197	0.0197	5468.9961	3.6057
Azimuth	157.4		97.9	25.2		1:277342
Zenith	43.1		64.7	122.2		
19		21	0.0205	0.0205	5345.4779	3.8417
Azimuth	18.8		4.9	99.7		1:260302
Zenith	36.2		54.6	83.3		
20		18	0.0175	0.0175	4703.9013	3.7210
Azimuth	176.5		30.5	86.6		1:268747
Zenith	93.5		4.2	92.3		
20		19	0.0191	0.0191	5244.0615	3.6475
Azimuth	152.9		62.9	152.9		1:274158
Zenith	148.2		90.0	121.8		
20		21	0.0201	0.0201	4752.5480	4.2342
Azimuth	132.1		56.3	37.6		1:236171

```

Zenith      98.1      30.2      PRE_ANALISIS.txt
118.9
21          18
0.0218     0.0218     0.0218     8600.7411     2.5310
Azimuth    147.5     22.5      62.0
Zenith     103.6     22.9     108.1
1:395096

```

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
18		19				
	0.0197		0.0197	0.0197	5468.9961	3.6057
Azimuth	157.4		97.9	25.2		1:277342
Zenith	43.1		64.7	122.2		
18		20				
	0.0175		0.0175	0.0175	4703.9013	3.7210
Azimuth	176.5		30.5	86.6		1:268747
Zenith	93.5		4.2	92.3		
18		21				
	0.0218		0.0218	0.0218	8600.7411	2.5310
Azimuth	147.5		22.5	62.0		1:395096
Zenith	103.6		22.9	108.1		
19		20				
	0.0191		0.0191	0.0191	5244.0615	3.6475
Azimuth	152.9		62.9	152.9		1:274158
Zenith	148.2		90.0	121.8		
19		21				
	0.0205		0.0205	0.0205	5345.4779	3.8417
Azimuth	18.8		4.9	99.7		1:260302
Zenith	36.2		54.6	83.3		
20		21				
	0.0201		0.0201	0.0201	4752.5480	4.2342
Azimuth	132.1		56.3	37.6		1:236171
Zenith	98.1		30.2	118.9		

BLOQUE 15

3D GEODETIC NETWORK ANALYSIS SUMMARY

Datum	WGS 84	1D Expansion Factor	1.95937
Linear Units	Meters	2D Expansion Factor	2.44788
Angular Units	Degrees	3D Expansion Factor	2.79532
Field Observations	18	A Priori Variance	1.00000
Coord Observations	6	Confidence Level	95.0
TOTAL OBSERVATIONS	24		
Num Stations	4		
Fixed In 1D	0		
Fixed In 2D	0		

PRE_ANALISIS.txt

Fixed In 3D 0
 Float Coord ParmS 12
 Direction ParmS 0
 Scale ParmS 0
 Rotation ParmS N 0
 Rotation ParmS E 0
 Rotation ParmS Up 0
 TOTAL PARMS 12

Degrees Of Freedom 12 Use Full Covariance Yes

□

Analized Coordinates

Station	Latitude	SD	Longitude	SD	Ellip Hgt	SD
21	S 34-50-17.22546	0.0070	W 56-04-44.51085	0.0070	-4.72778	0.0070
22	S 34-51-13.30692	0.0067	W 56-07-53.80014	0.0067	-4.68615	0.0067
23	S 34-52-41.85535	0.0088	W 56-03-34.09078	0.0088	-4.85969	0.0088
24	S 34-53-06.11934	0.0086	W 56-06-20.56701	0.0086	-4.80548	0.0086

1 - 1D Fixed 2 - 2D Fixed 3 - 3D Fixed

□

Adjusted Coordinates

Station	Covariance Matrix					
21	Latitude	S	34-50-17.22546	0.000048734		
	Longitude	W	56-04-44.51085	0.000000000	0.000048734	
	Ellip Hgt		-4.72778	-0.000000000	0.000000000	0.000048734
22	Latitude	S	34-51-13.30692	0.000045084		
	Longitude	W	56-07-53.80014	0.000000000	0.000045084	
	Ellip Hgt		-4.68615	0.000000000	0.000000000	0.000045084
23	Latitude	S	34-52-41.85535	0.000077951		
	Longitude	W	56-03-34.09078	0.000000000	0.000077951	
	Ellip Hgt		-4.85969	0.000000000	0.000000000	0.000077951
24	Latitude	S	34-53-06.11934	0.000073205		
	Longitude	W	56-06-20.56701	0.000000000	0.000073205	
	Ellip Hgt		-4.80548	-0.000000000	0.000000000	0.000073205

F - Fixed Component

□

Station Height Confidence Intervals

Confidence Level 0.950
Expansion ID Chi Square 1.959

AT	TO	Height Confidence Interval
21	NA	0.01368
22	NA	0.01316
23	NA	0.01730
24	NA	0.01676

□

Connected Station Height Confidence Intervals

Confidence Level 0.950
Expansion ID Chi Square 1.959

AT	TO	Height Confidence Interval
21	23	0.01372
22	21	0.01217
22	23	0.01405
22	24	0.01297
24	21	0.01354
24	23	0.01335

□

Distance Errors (connected stations)

Confidence Level 0.950
Expansion ID Chi Square 1.959

AT	TO	Distance	Stan Dev	PPM	Ratio
21	23	4802.4892	0.0137	2.8570	1:350020
22	21	5110.0513	0.0122	2.3824	1:419753
22	23	7138.4944	0.0141	1.9683	1:508044
22	24	4206.2799	0.0130	3.0842	1:324229
24	21	5748.1598	0.0135	2.3548	1:424660
24	23	4293.1558	0.0134	3.1107	1:321472

□

Distance Errors (all station pairs)

Confidence Level 0.950
Expansion ID Chi Square 1.959

PRE_ANALISIS.txt

AT	TO	Distance	Stan Dev	PPM	Ratio
21	22	5110.0513	0.0122	2.3824	1:419753
21	23	4802.4892	0.0137	2.8570	1:350020
21	24	5748.1598	0.0135	2.3548	1:424660
22	23	7138.4944	0.0141	1.9683	1:508044
22	24	4206.2799	0.0130	3.0842	1:324229
23	24	4293.1558	0.0134	3.1107	1:321472

□

Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	Radius (39.35)	Scaler	Radius (95.00)
21	0.0070	2.4477	0.0171
	0.0070	2.7876	0.0195
22	0.0067	2.4477	0.0164
	0.0067	2.7876	0.0187
23	0.0088	2.4477	0.0216
	0.0088	2.7876	0.0246
24	0.0086	2.4477	0.0209
	0.0086	2.7876	0.0239

□

Connected Station Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
21	23	0.0070	2.4477	0.0171	4802.4892	3.5691	1:280183
		0.0070	2.7876	0.0195	4802.4892	4.0646	1:246026
22	21	0.0062	2.4477	0.0152	5110.0513	2.9762	1:336003
		0.0062	2.7876	0.0173	5110.0513	3.3894	1:295040
22	23	0.0072	2.4477	0.0176	7138.4944	2.4590	1:406678
		0.0072	2.7876	0.0200	7138.4944	2.8003	1:357099
22	24	0.0066	2.4477	0.0162	4206.2799	3.8530	1:259537
		0.0066	2.7876	0.0185	4206.2799	4.3879	1:227897

PRE_ANALISIS.txt

24	21	0.0069	2.4477	0.0169	5748.1598	2.9418	1:339930
		0.0069	2.7876	0.0193	5748.1598	3.3502	1:298489
24	23	0.0068	2.4477	0.0167	4293.1558	3.8860	1:257331
		0.0068	2.7876	0.0190	4293.1558	4.4256	1:225960

□

All Station Pairs Error Circles

Confidence Level 0.950
 Expansion 2D Chi Square Scaler (1st row)
 Expansion 2D 'F' Scaler (2nd row)

AT	TO	Radius (39.35)	Scaler	Radius (95.00)	Chord	PPM	Ratio
21	22	0.0062	2.4477	0.0152	5110.0513	2.9762	1:336003
		0.0062	2.7876	0.0173	5110.0513	3.3894	1:295040
21	23	0.0070	2.4477	0.0171	4802.4892	3.5691	1:280183
		0.0070	2.7876	0.0195	4802.4892	4.0646	1:246026
21	24	0.0069	2.4477	0.0169	5748.1598	2.9418	1:339930
		0.0069	2.7876	0.0193	5748.1598	3.3502	1:298489
22	23	0.0072	2.4477	0.0176	7138.4944	2.4590	1:406678
		0.0072	2.7876	0.0200	7138.4944	2.8003	1:357099
22	24	0.0066	2.4477	0.0162	4206.2799	3.8530	1:259537
		0.0066	2.7876	0.0185	4206.2799	4.3879	1:227897
23	24	0.0068	2.4477	0.0167	4293.1558	3.8860	1:257331
		0.0068	2.7876	0.0190	4293.1558	4.4256	1:225960

□

Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT	Major	Minor	Azimuth	Height
21	0.0171	0.0171	86.7	0.0137
21	0.0195	0.0195	86.7	0.0137
22	0.0164	0.0164	87.0	0.0132
22	0.0187	0.0187	87.0	0.0132
23	0.0216	0.0216	135.0	0.0173
23	0.0246	0.0246	135.0	0.0173

PRE_ANALISIS.txt

24 0.0209 0.0209 2.1 0.0168
 24 0.0239 0.0239 2.1 0.0168

□

Connected Station 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
21		23					
0.0171	0.0171		158.2	0.0137	4802.4892	3.5693	1:280168
0.0195	0.0195		158.2	0.0137	4802.4892	4.0646	1:246026
22		21					
0.0152	0.0152		70.2	0.0122	5110.0513	2.9763	1:335984
0.0173	0.0173		70.2	0.0122	5110.0513	3.3894	1:295041
22		23					
0.0176	0.0176		112.6	0.0141	7138.4944	2.4591	1:406656
0.0200	0.0200		112.6	0.0141	7138.4944	2.8003	1:357100
22		24					
0.0162	0.0162		145.9	0.0130	4206.2799	3.8532	1:259523
0.0185	0.0185		145.9	0.0130	4206.2799	4.3879	1:227898
24		21					
0.0169	0.0169		25.0	0.0135	5748.1598	2.9419	1:339912
0.0193	0.0193		25.0	0.0135	5748.1598	3.3502	1:298490
24		23					
0.0167	0.0167		79.9	0.0134	4293.1558	3.8863	1:257317
0.0190	0.0190		79.9	0.0134	4293.1558	4.4256	1:225960

□

All Station Pairs 2D Error Ellipses

Confidence Level 0.950
 Expansion 1D Chi Square 1.959
 Expansion 2D Chi Square 2.448 (1st row)
 Expansion 2D 'F' 2.788 (2nd row)

AT Major	Minor	TO	Azimuth	Height	Chord	PPM	Ratio
21		22					
0.0152	0.0152		70.2	0.0122	5110.0513	2.9763	1:335984
0.0173	0.0173		70.2	0.0122	5110.0513	3.3894	1:295041
21		23					
0.0171	0.0171		158.2	0.0137	4802.4892	3.5693	1:280168
0.0195	0.0195		158.2	0.0137	4802.4892	4.0646	1:246026
21		24					
0.0169	0.0169		25.0	0.0135	5748.1598	2.9419	1:339912
0.0193	0.0193		25.0	0.0135	5748.1598	3.3502	1:298490

PRE_ANALISIS.txt

22		23					
0.0176	0.0176	112.6	0.0141	7138.4944	2.4591	1:406656	
0.0200	0.0200	112.6	0.0141	7138.4944	2.8003	1:357100	
22		24					
0.0162	0.0162	145.9	0.0130	4206.2799	3.8532	1:259523	
0.0185	0.0185	145.9	0.0130	4206.2799	4.3879	1:227898	
23		24					
0.0167	0.0167	79.9	0.0134	4293.1558	3.8863	1:257317	
0.0190	0.0190	79.9	0.0134	4293.1558	4.4256	1:225960	

□

Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	Medium	Minor
21	0.0195	0.0195	0.0195
Azimuth	87.1	177.2	96.0
Zenith	83.4	91.0	6.7
22	0.0188	0.0188	0.0188
Azimuth	177.0	87.9	177.9
Zenith	174.4	89.9	95.6
23	0.0247	0.0247	0.0247
Azimuth	10.4	105.9	29.2
Zenith	57.6	81.3	33.8
24	0.0239	0.0239	0.0239
Azimuth	14.1	170.3	91.9
Zenith	134.4	133.0	102.2

□

Connected Station 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
21		23				
Azimuth	0.0196	0.0196	0.0196	4802.4892	4.0759	1:245345
Zenith	68.2	158.2	68.2			
	165.5	90.0	104.5			
22		21				
Azimuth	0.0174	0.0174	0.0174	5110.0513	3.3988	1:294224
Zenith	75.6	177.9	160.2			
	98.3	34.5	123.2			
22		23				
Azimuth	0.0200	0.0200	0.0200	7138.4944	2.8081	1:356112
	17.1	111.0	22.6			

PRE_ANALISIS.txt					
Zenith	32.9	87.5	122.8		
22	24				
Azimuth	0.0185	0.0185	0.0185	4206.2799	4.4001
Zenith	108.9	155.8	55.9		1:227267
	33.0	66.1	111.4		
24	21				
Azimuth	0.0193	0.0193	0.0193	5748.1598	3.3595
Zenith	27.9	147.4	115.0		1:297664
	99.7	19.2	73.6		
24	23				
Azimuth	0.0191	0.0191	0.0191	4293.1558	4.4378
Zenith	90.1	19.2	169.9		1:225335
	104.4	38.2	124.5		

□

All Station Pairs 3D Error Ellipsoids

Confidence Level 0.950
Expansion 3D Chi Square 2.795

AT	Major	TO	Medium	Minor	Chord	PPM
21	22					
Azimuth	0.0174	0.0174	0.0174	5110.0513	3.3988	
Zenith	75.6	177.9	160.2		1:294224	
	98.3	34.5	123.2			
21	23					
Azimuth	0.0196	0.0196	0.0196	4802.4892	4.0759	
Zenith	68.2	158.2	68.2		1:245345	
	165.5	90.0	104.5			
21	24					
Azimuth	0.0193	0.0193	0.0193	5748.1598	3.3595	
Zenith	27.9	147.4	115.0		1:297664	
	99.7	19.2	73.6			
22	23					
Azimuth	0.0200	0.0200	0.0200	7138.4944	2.8081	
Zenith	17.1	111.0	22.6		1:356112	
	32.9	87.5	122.8			
22	24					
Azimuth	0.0185	0.0185	0.0185	4206.2799	4.4001	
Zenith	108.9	155.8	55.9		1:227267	
	33.0	66.1	111.4			
23	24					
Azimuth	0.0191	0.0191	0.0191	4293.1558	4.4378	
Zenith	90.1	19.2	169.9		1:225335	
	104.4	38.2	124.5			